

②

NAVAL POSTGRADUATE SCHOOL Monterey, California

AD-A246 376



DTIC
FI ECTE
S D D
FEB 18 1992

THESIS

THE HIDDEN DIMENSION OF
STRATEGIC PLANNING:
EXPLORATIONS IN THE FORMATION
OF PERSPECTIVES

by

Paul Michael Whitfield

September, 1991

Thesis Advisor:
Co-Advisor:

F. Teti
M. Tsypkin

Approved for public release; distribution is unlimited.

92 2 12 190

92-03708



UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE

REPORT DOCUMENTATION PAGE

Form Approved
OMB No 0704-0188

1a REPORT SECURITY CLASSIFICATION UNCLASSIFIED			1b RESTRICTIVE MARKINGS		
2a SECURITY CLASSIFICATION AUTHORITY			3 DISTRIBUTION/AVAILABILITY OF REPORT Approved for public release; distribution is unlimited.		
2b DECLASSIFICATION/DOWNGRADING SCHEDULE			5 MONITORING ORGANIZATION REPORT NUMBER(S)		
4. PERFORMING ORGANIZATION REPORT NUMBER(S)			7a. NAME OF MONITORING ORGANIZATION Naval Postgraduate School		
6a NAME OF PERFORMING ORGANIZATION Naval Postgraduate School	6b OFFICE SYMBOL (If applicable) 38	7b. ADDRESS (City, State, and ZIP Code) Monterey, CA 93943-5000			
6c ADDRESS (City, State, and ZIP Code) Monterey, CA 93943-5000		8a. NAME OF FUNDING/SPONSORING ORGANIZATION			
8b OFFICE SYMBOL (If applicable)		9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER			
8c ADDRESS (City, State, and ZIP Code)		10 SOURCE OF FUNDING NUMBERS			
		PROGRAM ELEMENT NO	PROJECT NO	TASK NO	WORK UNIT ACCESSION NO
11. TITLE (Include Security Classification) (UNCLASSIFIED) THE HIDDEN DIMENSION OF STRATEGIC PLANNING: EXPLORATIONS IN THE FORMATION OF PERSPECTIVES					
12. PERSONAL AUTHOR(S) Whitfield, Paul M.					
13a TYPE OF REPORT Master's Thesis	13b TIME COVERED FROM TO	14. DATE OF REPORT (Year, Month, Day) 1991, September		15 PAGE COUNT 128	
16 SUPPLEMENTARY NOTATION The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government.					
17 COSATI CODES			18 SUBJECT TERMS (Continue on reverse if necessary and identify by block number)		
FIELD	GROUP	SUB-GROUP	Decision-making. Perspectives		
19 ABSTRACT (Continue on reverse if necessary and identify by block number) Perspectives are an extremely important factor in political decisions. The study of decision-making is often approached in a segmented manner with social scientists each believing their discipline is the correct approach. This thesis asserts that the study of decision-making must focus on how perspectives are formed and be interdisciplinary. Each discipline should be incorporated to discover how various factors influence the decision-making process. Perspectives are often confused with beliefs or ideas. This thesis defines perspectives as a subjective approach to an objective reality. A large portion of various sections in the thesis is devoted to examining concepts of subjective reality. It explores some of the possible interrelationships of perceptual influences with the intent of better understanding the decision-making process. The thesis presents several models which help explain the processes involved in forming perspectives and making decisions.					
20 DISTRIBUTION/AVAILABILITY OF ABSTRACT <input checked="" type="checkbox"/> UNCLASSIFIED/UNLIMITED <input type="checkbox"/> SAME AS RPT <input type="checkbox"/> DTIC USERS			21 ABSTRACT SECURITY CLASSIFICATION UNCLASSIFIED		
22a NAME OF RESPONSIBLE INDIVIDUAL Dr. Frank Teti			22b TELEPHONE (Include Area Code) 408-646-2228	22c OFFICE SYMBOL 38	

Approved for public release; distribution is unlimited.

The Hidden Dimension of Strategic Planning:
Explorations in the Formation
of Perspectives

by

Paul M. Whitfield
Lieutenant, United States Navy
B.A., University of New Mexico, 1985

Submitted in partial fulfillment
of the requirements for the degree of

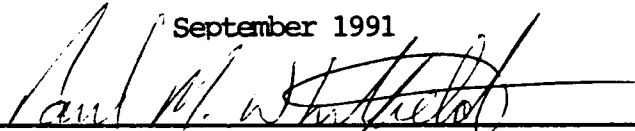
MASTER OF ARTS IN NATIONAL SECURITY AFFAIRS

from the

NAVAL POSTGRADUATE SCHOOL

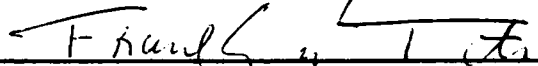
September 1991

Author:




Paul M. Whitfield

Approved by:



F. Teti, Thesis Advisor



M. Tsytkin, Second Reader



T. Bruneau, Chairman
Department of National Security Affairs

ABSTRACT

Perspectives are an extremely important factor in political decisions. The study of decision-making is often approached in a segmented manner with social scientists each believing their discipline is the correct approach. This thesis asserts that the study of decision-making must focus on how perspectives are formed and be interdisciplinary. Each discipline should be incorporated to discover how various factors influence the decision-making process.

Perspectives are often confused with beliefs or ideas. This thesis defines perspectives as a subjective approach to an objective reality. A large portion of various sections in the thesis is devoted to examining concepts of subjective reality. It explores some of the possible interrelationships of perceptual influences with the intent of better understanding the decision-making process. The thesis presents several models which help explain the processes involved in forming perspectives and making decisions.



Accession For	
NTIS CRA&I	<input checked="checked" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By	
Distribution /	
Availability Codes	
Dist	Avail and/or Special
A-1	

TABLE OF CONTENTS

I.	INTRODUCTION	1
II.	DIMENSIONS OF POLITICAL DECISION-MAKING	8
	A. GAME THEORY	11
	1. SEU Theory	13
	2. Laws--Or Points Of Reference?	18
	B. THE HORIZONTAL LEVEL OF DECISION-MAKING	23
	1. KNOWLEDGE, RATIONALITY, AND REALITY	25
	2. STRUCTURING ORDER OUT OF CHAOS	29
	C. SUMMARY	35
III.	REALITY--FACT OR FANTASY?	38
	A. THE SELF-CONCEPT	39
	B. ENCAPSULATED MAN/LIFE SPACE THEORY	41
	C. SUMMARY	46
IV.	HISTORY and IDEAS	48
	A. HISTORICAL ANALOGIES	50
	B. PSYCHOHISTORY	53
	C. HISTORICISM AND IDEAS	57
	D. SUMMARY	64

V.	NATIONAL CHARACTER AND INDIVIDUAL PERSONALITIES	66
A.	NATIONAL CHARACTER	68
B.	INDIVIDUAL PERSONALITY	72
C.	SUMMARY	74
VI.	DEVELOPMENT OF COGNITIVE CONSTRUCTS	76
A.	MAKING INFERENCES	77
B.	STRESS AND ANXIETY	80
C.	VALUES AND BELIEF SYSTEMS	82
D.	SUMMARY	86
VII.	MODELING THE DECISION-MAKING PROCESS	89
A.	MEMORY ACTIVATION	90
B.	MODELING PERCEPTIVES	96
C.	SUMMARY	102
VIII.	CONCLUSION	103
	LIST OF REFERENCES	110
	BIBLIOGRAPHY	114
	INITIAL DISTRIBUTION LIST	121

LIST OF FIGURES

Figure 1	Dimensions of Political Decision-Making. . .	8
Figure 2	Horizontal Dimension of Decision-Making . .	24
Figure 3	Encapsulated Man Theory	42
Figure 4	Example of Unit Activations	91
Figure 5	Basic Model of DOMAINS	97
Figure 6	Expanded Model of DOMAINS	100

I. INTRODUCTION

The study of decision-making is often approached in a segmented manner with social scientists each believing their discipline is the correct approach. Psychologists and psychiatrists want to psychoanalyze the decision-maker and discover what dark secrets may be hidden in his or her mind. Sociologists look at the decision-maker's social organization and his or her interactive information processing. Game theorists search for the "most relevant" information from which they can develop "rational" models (as if rationality is a universal trait of mankind). Political scientists conduct surveys or "re-fight the last war."

However, the study of decision-making must be interdisciplinary. Each discipline should be incorporated to discover how various factors influence the decision-making process. To be successful, it is imperative for the student to have some idea of the motivation behind human behavior. As Holsti observed, "students of international politics and foreign policy have not achieved consensus about the central relevance or utility of research on the belief systems and cognitive processes of foreign policy leaders."¹ It is not

¹ Axelrod, Robert, ed. Structure of Decision, The Cognitive Maps of Political Elites, (New Jersey: Princeton University Press, 1976), 20.

enough to look for statistical correlations or to perform a regression analysis and expect future decisions to "fit the curve." That is, not if people learn by mistakes (or any other event). This thesis looks at some of the factors which influence the formation of perspectives, or mindsets, with the intention of demonstrating the importance of integrating various disciplines in the study of decision-making.

Long before Descartes' famous "I think, therefore I am," or Kant's conceptualization of cognitive schemata, man had been on an incessant search to know himself. His search to understand the "who," "what," and "why" of self first led him to ponder metaphysics to explain irrationality. Next, (deciding man is a rational being after all), he ascribed "laws" to nature in an attempt to determine order in life. Most recently, in what could be described as a combination of metaphysics and science, man continued the search in what is termed the "new physics" or quantum physics for answers to these same questions.²

The idea that man as a cultural being is bound by hidden rules and is not master of his fate may come as a shock to some--it has always been hard to accept. The one thing that is quite clear, however, is that man is bound as long

² Three excellent books in which the lay reader may pursue this subject are: Kuhn, Thomas, The Structure of Scientific Revolutions, (Chicago: University of Chicago Press, 1976); Briggs, John and F. David Peat, Looking Glass Universe: The Emerging Science of Wholeness, (New York: Simon & Schuster, Inc., 1984); and Zohar, Danah, The Quantum Self: Human Nature And Consciousness Defined By The New Physics, (New York: William Morrow and Company, Inc., 1990).

as he remains ignorant of the nature of the hidden pathways culture provides for him.³

What are these hidden rules and pathways to which Hall refers? How do they fit into the overall scheme of the decision-making process--the "big picture?" Perspectives are extremely important in political decision-making. Acknowledging that man is not always aware of the inner motivations which form his perspectives, this thesis looks at some of the subtle determinants of perspectives--and thus ultimately looks at subtle determinants of decision as well.

Perspectives are often confused with beliefs or ideas. Many empirical studies involving perspectives pertain to visual experiments and optical illusions. Perspectives, as used in this thesis, may be defined as a subjective approach to objective reality. Perspectives are thus considered as: (1) unique to the individual, and (2) having a transitory nature due to the possibility of their changing with the dynamics of the situation. Robert McNamara, referring to the process of decision-making during crises, writes: "What may look like a reckless gamble in more tranquil times might be seen as a reasonable risk."⁴

³ Hall, Edward T., The Silent Language, (Garden city: Doubleday & Company, Inc., 1959), 144.

⁴ McNamara, Robert S., Blundering Into Disaster: Surviving the First Century of the Nuclear Age, (New York: Simon & Schuster, Inc., 1985), 114.

The way a person perceives a particular situation depends on many factors, the least of which may actually be facts. Selective awareness often causes one to see clearly facts which are not there but may appear present due to expectations and perceptions. These expectations and perceptions are built upon experiences, prior partial knowledge regarding the subject, culturally derived beliefs and ideas, etc.

This thesis explores some possible interrelationships of perceptual influences with the intent of better understanding the decision-making process. In so doing it investigates the following five hypotheses:

- Reason and reality are concepts unique to each person and probably change over time.
- Reason depends on the application of a person's culture/customs to their epistemic development.
- Previously learned concepts greatly influence how people perceive new stimuli and how people structure problems and formulate solutions.
- Culture helps to shape perceptions by setting attitudes and beliefs.
- Decisions may be determined more by influences than by information.

The first part of the thesis begins by presenting a two-dimensional model of decision-making. This is followed by looking at game theory with some of its inherent problems. As it does this it discusses Subjective Expected Utility (SEU) theory and whether "laws" are constants or merely points of reference. After that is presented an expanded view of the

horizontal dimension of decision-making, along with an introduction to the concepts of: knowledge, rationality, and reality. This chapter differentiates between objectivity and subjectivity in terms of reality. It hints at the concept of cognitive schemata by showing that people structure artificial order because they cannot comprehend chaos.

The next chapter explores whether reality should be considered fact or fantasy. It does this by digging into the concept of self. This chapter makes the claim that people are basically egoistic and that this strongly determines what they perceive as reality. It also shows that people will emulate the people which they admire.

The chapter on history and ideas looks at history from two different, but complementary, viewpoints. The traditional viewpoint takes the form of historical analogies. The other viewpoint that is looked at is that of psycho-history. The point here is that culture evolves in a Darwinist "survival of the fittest." Thus, a culture--in any given time period--will accept/expect behavioral norms which perpetuate that particular people. In so doing it shapes the outlook of its people. This is sometimes viewed in terms of "degrees of civilization." (For example, "civilized" people no longer practice infanticide, etc).

This chapter also shows that certain ideas become prominent during any particular time period. These ideas further influence people's perspectives and, at times, are

accepted by some people as "universals," or "natural laws," etc. In this way they have a strong bearing on a person's perspectives.

The chapter on national character and individual personality combines and expands on the concepts presented in the two previous chapters. It further develops the part which culture plays in developing perspectives. The chapter questions whether distinct societies develop a national character, or psyche like a person develops a personality, or are there, in fact, universal attributes of human nature.

The next chapter concerns the development of cognitive constructs. As the previous chapter looked at the development of personality, this chapter looks at attempts to isolate uniformities that exist in human cognition and action, while at the same time, demonstrating the diversities which make people individuals. It asserts that information is always tempered by our internal biases.

A person's values and beliefs may form the strongest influences on his or her perspectives. The greatest bond of such influences appear to be cemented when a person is relatively young. In fact, Jesuit priests are accredited with claiming that if they are given a child until the age of five, then that person will be theirs for life. This section on values and belief systems investigates theories of how these concepts affect a person's perspectives.

The next chapter is about modeling the process of forming perspectives. This chapter presents a descriptive model of the perspective formation process which is closely aligned with models of short-term and long-term memory. The model builds on the Encapsulated Man theory using information presented throughout the thesis. The intent is to bring together the various concepts into the "big picture" of the process of decision-making. The thesis was designed to facilitate understanding the development of perspectives, and thus ultimately the decision-making process. Likewise, the model which is presented here is intended to help understand the process leading to the decision, not to predict what decision might be made.

II. DIMENSIONS OF POLITICAL DECISION-MAKING

Political decision-making exists simultaneously within two dimensions. The conceptualization of this is shown in Figure 1. The vertical aspect pertains to the relative importance of the decision. This plane ranges from the most important decisions to the least important ones. Here it is determined

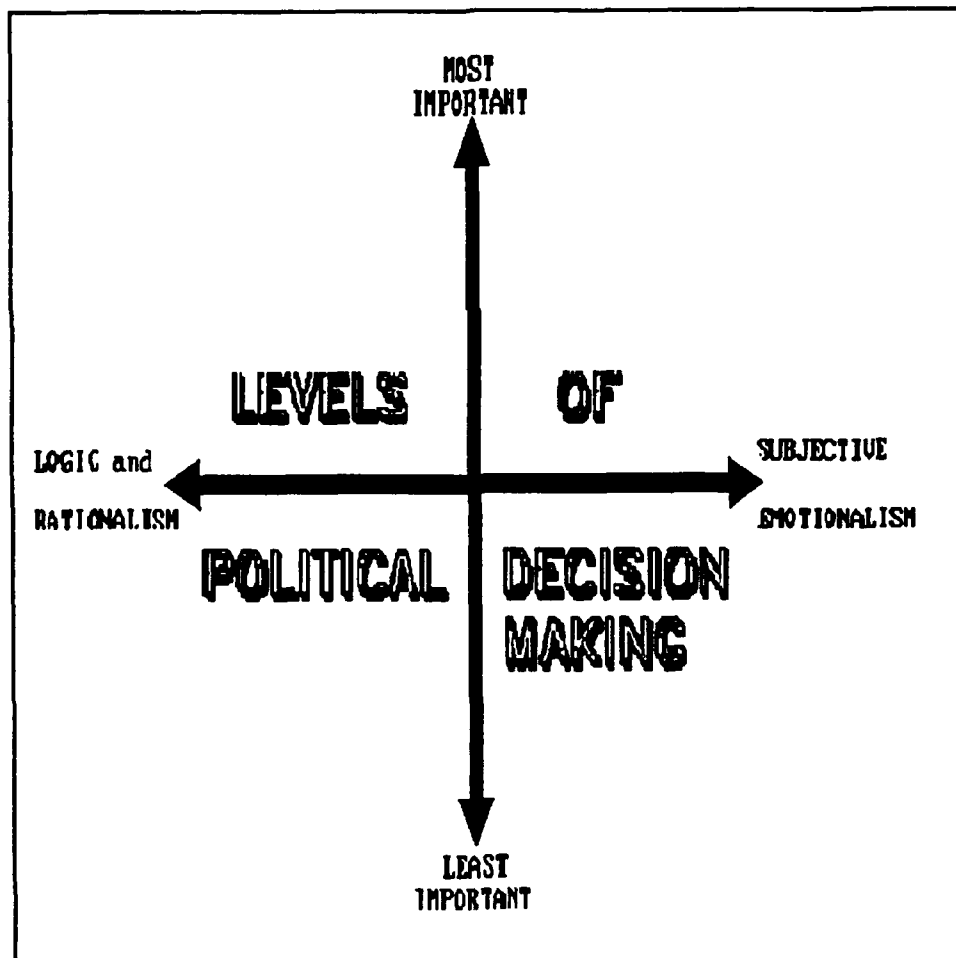


Figure 1 Dimensions of Political Decision-Making.

who must make the decision and the amount of attention devoted to it. Decisions which are considered "most important" are ones for which the political leader would be historically viewed as personally responsible. Examples would certainly include nonroutine situations such as initiating or terminating wars, or other decisions involving possible loss of life. Additionally, this area of the continuum could include any decision which the leader feels he or she must become personally involved.

While it is recognized that people in command are responsible for the decisions of their subordinates, leaders often entrust the authority for certain types of decisions to lower levels of competence. This delegation of authority is represented at infinite levels on the vertical continuum below the area which the political leader reserves for him or herself.

Also embedded within the realm of decision-making is a horizontal level ranging from logic and rationalism to subjective emotionalism. This is the dimension of decision-making with which this thesis is primarily concerned.

All other things being equal, it is generally possible to predict the **vertical level** at which a decision will be made. However, it is just as generally impossible to predict the **horizontal level** at which political decisions will be made. One cannot categorize political decision-making according to its inherent nature. If this were possible, then it would be

equally probable to predict the actual decision because they would all be consistently determined according to the *rational man* concept.

Herein lies the greatest fallacy of game theory. In an attempt to maintain simplicity, game theorists assume rational goal seeking and an ability to structure an actor's propensity for risk taking as well as an ability to determine the actor's level of emotional frustration. This part of the thesis looks at game theory and examines some reasons for its failure to be an effective tool for understanding the political decision-making process. As it does this it discusses Subjective Expected Utility (SEU) theory and whether "laws" are constants or "points of reference." More will be said regarding the horizontal dimension of decision-making in Section B.

A. GAME THEORY

Modern game theory is considered to have begun in 1944 with the publication of The Theory of Games and Economic Behavior⁵. World War Two, followed by decades of an ever increasing recognition of the destructive power of nuclear weapons, encouraged the development of game theory to determine how leaders might act/react in risky situations. Rather than as a purely predictive instrument, the widest usage of game theory is for studying the process of decision-making.

The basis of game theory is the dual premises of rationality and maximization of utility.⁶ "It [game theory] is concerned with rational ways of playing and this means only one thing: to get as much as possible in terms of utilities."⁷ Many crisis-related decisions, or decisions requiring reaction, are based on judging the probability of an outcome given some input. Some researchers have noted that these types of decisions are not grounded in rationality. "The

⁵ See von Neuman, John and Oskar Morgenstern, The Theory of Games and Economic Behavior, (New York: Wiley, 1944).

⁶ As this thesis is not a treatise on game theory it necessitates excluding explanations of some of the more obvious factors of game theory (as they apply to political decisions) such as the need for two or more players, neither of which can be "nature," and the indiscrimination of luck.

⁷ Rapoport, Anatol, Two-Person Game Theory, The Essential Ideas, (Ann Arbor: The University of Michigan Press, 1966), 29.

experimental results indicate that people systematically violate the principles of rational decision making when judging probabilities, making predictions or otherwise attempting to cope with probabilistic tasks."⁸ This thesis will show that these premises are also the foundation for the inaccuracies obtained from using game theory for predicting how an opponent will make a risky decision.

A further complication of game theory is the insistence on the assumptions of *ceteris paribus* and simplicity. The principle of *ceteris paribus* (all other things being equal) means to hold constant all variables except the one to be examined to see what effect that particular variable has on the others. Political decisions are not made in a sterile laboratory where the environment is structured to fit the experiment.

Simplicity is important in game theory for achieving a functional understanding of the model. "A mathematical model is a tremendous simplification of what it represents."⁹ In fact, simplicity is the ground rule for all models. Since the world is complex, game theorists postulate that one cannot model the world, with all its variables inherent in decision making. Models are kept simple in order to be easily

⁸ Carroll, John S. and John W. Payne, eds., Cognition and Social Behavior, (Hillsdale: Lawrence Erlbaum Associates, 1976), 169.

⁹ Axelrod, 1976, 58.

understood and to make errors and solutions clearer to detect. "In short, if the essentials which are selected by game theory are misleading or too narrow, at least they are so clear and precise that one may specify with precision what they omit or distort."¹⁰

Paradoxically, it is this very simplicity and elegance which draws the most frequent criticism of game theory. Critics often claim that the simplicity of formal modeling cannot accurately reflect psychological or political realism.

People often lack clear goals, misperceive each other's actions and intentions, and miscalculate what is in their own best interest. Nations often send off unintended signals and respond as much to internal political necessities as to external systems of incentives.¹¹

1. SEU Theory

Most types of games are based on Subjective Expected Utility (SEU) theory. The basic assumptions of SEU theory were mentioned earlier regarding actors making only rational choices based on maximizing their expected utility. In game theory all actors have perfect information available and understand all alternatives and consequences. SEU actors fully comprehend themselves, their desires, and motivations. They have a well-defined cardinal utility function. This

¹⁰ Press, Charles and Alan Arian, Empathy and Ideology, Aspects of Administrative Innovation, (Chicago: Rand McNally & Company, 1966), 156.

¹¹ Tetlock, Philip, et al, ed., Behavior, society and Nuclear War: Vol I, (New York & Oxford: Oxford University Press, 1989), 364.

mythical person is referred to as *rational man* in behavioral sciences and as *economic man* in economics.

Conceptually, the SEU model is a beautiful object deserving a prominent place in Plato's heaven of ideas. But vast difficulties make it impossible to employ it in any literal way in making actual human decisions.¹²

Tversky and Kahnemann¹³ have conducted experiments using game theory in situations involving risk and uncertainty. Their observations have shown that human behavior does not perform in accordance with SEU theory.

Tetlock indicates that researchers may draw the wrong conclusions when making assumptions about a policy's "underlying cognitive or affective process." He points out that political statements and actions do not always represent what they appear on the surface.

Thus, policymakers may appear to rely on simple rules of thumb in drawing lessons from history, but they may actually be working with a far more subtle and sophisticated grasp of the situation. Policymakers may be using simple historical arguments (such as 'no more Munichs' or 'no more Vietnams') to rally support from wavering political constituencies and to preempt potential criticism from either the left or right. In a similar vein, policymakers may not actually be unaware of value trade-offs or of contradictory evidence but may find it politically useful to refuse to acknowledge them.¹⁴

¹² Simon, Herbert, Reason in Human Affairs, (Stanford: Stanford University Press, 1983), 13.

¹³ Tversky, Amos and Daniel Kahnemann, "Judgement Under Uncertainty: Heuristics and Biases," Science, 185: No. 4157 (27 Sep 1974), 1124-1131.

¹⁴ Tetlock, et al., 1989, 343.

Not knowing the correct motive underlying such assertions complicates accurate gaming. The use of history will be studied further in the chapter on History and Ideas.

Steven Kull,¹⁵ psychologist turned political scientist, conducted a study on the psychological processes involved in US and Soviet defense policy making as it applies to nuclear weapons. His methodology included extensive research and many in-depth interviews with defense intellectuals, policy makers, and high ranking military officers.

Kull found that even security motives are often overridden by psychological factors. One rationale which he postulates as a reason for a nuclear arms race between the US and USSR is satisfying some psychological need. Kull found that in some cases policies are seen as valuable because they fulfill competitive desires for status and prestige, or fulfill the inherent urge to be competitive. Though not the only rationale Kull blames for an arms race, satisfying psychological needs lacks the national security dimension and dwells on emotional gratifications. "I think that for the most part it is more accurate to say that security-oriented cognitive functions [are] being unconsciously subverted by emotion-oriented motives."¹⁶

¹⁵ Kull, Steven, Minds At War, Nuclear Reality and the Inner Conflicts of Defense Policymakers, (New York: Basic Books, Inc., 1989).

¹⁶ Ibid., 225-306.

Political decisions--including those as important as nuclear war policy developed during the luxury of peacetime--**are not made using SEU theory.** Such decisions are often colored by psychological and cultural factors which may be hidden from the decision-maker.

SEU theory has never been applied, and never can be applied--with or without the largest computers--in the real world. Yet one encounters many purported applications in mathematical economics, statistics, and management science. Examined more closely, these applications retain the formal structure of SEU theory, but substitute for the incredible decision problem postulated in that theory either a highly abstracted problem in a world simplified to a few equations and variables, with the utility function and the joint probability distributions of events assumed to be already provided, or a microproblem referring to some tiny, carefully defined and bounded situation carved out of a larger real-world reality.¹⁷

George looks at game theory in light of determining strategies for facilitating cooperation.¹⁸ In so doing, he explains the limited applicability of game theory to foreign policy decision-making. One reciprocating strategy which George discusses is the strategy of "tit-for-tat" as used in world famous game The Prisoner's Dilemma.¹⁹ "The tit-for-tat

¹⁷ Simon, 1983, 14.

¹⁸ George, Alexander L., Philip J. Farley, and Alexander Dalin, eds., U.S.-Soviet Security Cooperation: Achievements, Failures, Lessons, (New York and Oxford: Oxford University Press, 1988), 694-711.

¹⁹ As explained in the sources listed below, The Prisoner's Dilemma is considered one of the foremost examples of theoretic games due to its simplicity and flexibility to fit different situations of conflict. The tit-for-tat strategy has consistently beaten other strategies in an annual international challenge to solve the game. For further

strategy may have internal validity within the structure of the experimental game but, not surprisingly, serious questions arise regarding the external validity of the theory if one tries to employ it in more complex settings such as the adversarial relations between nations."²⁰

One reason for the inapplicability of game theory to foreign policy is that game participants have perfect knowledge regarding possible outcomes of the moves they make. The making of foreign policy is replete with uncertainty. Another constraint with strategies of cooperation is that the cooperation may turn into one-up-manship, or feuding. This, in fact, is the basis of arms races.

Some game theorists object to the use of the word "game" in game theory because of the connotation of frivolity. Schelling suggests it be called a "theory of interdependent decision."²¹ Whatever utility that may be gained from game theory is often lost by the researcher attributing causation to the variables instead of correlation. Games may be

information regarding The Prisoner's Dilemma see: Axelrod, Robert, The Evolution of Cooperation, (New York: Basic Books, Inc., 1984; Rapoport, 1966; and Rapoport, Anatol and Albert Chammah, Prisoner's Dilemma, A Study in Conflict and Cooperation, (Ann Arbor: The University of Michigan Press, 1965).

²⁰ George, 1988, 704.

²¹ Schelling, Thomas, The Strategy of Conflict, (London, Oxford, New York: Oxford University Press, 1960), 16.

interesting and fun to play, but they remain games, not decision tools.

2. Laws--Or Points Of Reference?

Games have rules. The very structure of games often leads to the availability of only a limited number of alternatives. This structuring is known as "agenda setting" in administrative sciences. Effective administrators know that one way to manipulate a meeting is to set the agenda so only particular topics can be discussed. Agenda setting inevitably limits alternative decisions which could be otherwise made.

Game theorists justify their setting of rules and the structuring of games on the premise of bounded rationality. "When the supply of available 'objective' criteria is incapable of yielding a complete set of rules, that is, when the game is 'indeterminate,' norms of some sort must be developed, mutually perceived, and accepted; patterns of action and response have to be legitimized."²² Viewed in its proper context this statement simply means to structure the game so one can only achieve certain results. If the results are unpredictable (like in the real world), then the game has little or no utility. On the other hand, if the results **are** predictable, then there is no reason for the game.

It is difficult, if not impossible, to include in a game all factors which may be connected in the decision process.

²² Ibid., 168-169.

Game theorists claim to isolate the relevant factors, and then they add the assumption that these factors (and only these factors) will be pertinent to all rational people, in all times, and for all situations in which the game may be employed. Doing this puts artificial boundaries on rationality, restricts the possible decisions, and is unrealistic.

There are no laws which are pertinent to all people in all times. Even "laws" of physics and mathematics merely reflect human understanding during a particular period of time and may be relevant only in certain situations. Such "laws" are a point of reference upon which we expand (**and sometimes limit**) our knowledge. (In later sections the "point of reference" theme will be expanded and brought to focus on how it pertains to the development of perspectives).

Consider for a moment how belief in the "law" that the sun revolved around a flat earth was an acceptable point of reference for centuries. This may seem a bizarre example, but mankind was able to operate within its constraints as if it were actually true. These "scientific laws" tainted mankind's perspectives in all facets of life as he tried to fit the world into the model he was able to understand.

Consider the more modern examples of absolute space and time. Aristotle believed that space was absolute and objects existed in absolute space in their preferred state of rest until acted upon. He gave the earth as his point of

reference. Newton's "laws" proved there is no unique or preferred state of rest, thus no absolute space.

Newton did agree with Aristotle that time is absolute. They both believed that any particular interval in time would be measured the same regardless who performed the measurements or where the measurements were performed. Einstein's theory of relativity proved this to be incorrect as well. Time depends on the point of reference, thus a twin who returned to Earth after a long space journey would not have aged as rapidly as the sibling who remained at home.

Newton's laws of motion put an end to the idea of absolute position in space. The theory of relativity gets rid of absolute time.²³

Having said all that, it is important to note that if space and time are not absolutes then it is ludicrous to consider human behavior in terms of constancy. Mankind may be able to operate with some degree of sufficiency within such a self-limiting model, but its designers should be warned not to sail too near to the edge of the earth.

It is time, however, that we began to realize that much of what passes for science today may have been scientific yesterday but can no longer qualify because it does not make any additional meaningful statements about anything. It blindly adheres to procedures as a church adheres to its ritual.²⁴

²³ Hawking, Steven, A Brief History Of Time, From The Big Bang To Black Holes, (New York: Bantam Books, 1988), 33.

²⁴ Hall, 1959, 116.

Game theory deals with how people are expected to conduct themselves in situations of conflict, not with how they actually conduct themselves. It is founded on the concept of rationality. Rationality equates to consistency in human behavior. Game theory is unable to cope with inconsistencies in behavior.

Game theory, as it was formulated by mathematicians, is not equipped to deal with these matters, because there is no room in that theory for the psychological make-up of the participants. To the extent that psychological matters are allowed to enter a theory of conflict, the theory ceases to be a model of rational conflict....The theory would become a behavioral theory, and real behavior can never be explained on the basis of concepts of "rationality" alone.²⁵

Perhaps the greatest utility of game theory can be achieved if one remembers that it is not reality which is being modeled, but it is the researcher's assumptions based on expected conditions.

The "reason" in someone's action is important for understanding that action. Questions of "why" and "how" must be considered along with the "what" of decisions. This thesis expounds the theory that everything which happens to a person, a people, a nation, etc., is connected or influenced by all that has happened before to that person, people, or nation, etc. The influences may be subtle or indirectly connected, but they are there and thus cannot be totally dismissed. We,

²⁵ Rapoport, 1966, 209.

both individually and collectively as communities or nations, are products of all that has gone before, as well as the events and interaction of the present, and of our beliefs, fears, and aspirations for the future. This is the manner in which we mold the future.

Earlier it was shown that the horizontal level of decision-making ranged from subjective emotionalism to logic and reason. It is time to take off the "blindness" and see the "big picture." In order to do this one must investigate the subtle influences which exist on the horizontal level of decision-making. The next Section looks at several factors involved, but often neglected, in the study of decision-making. Volumes would be required to properly fit the expanse of information available, therefore it was necessary to include only some of the more prominent factors involved in decision-making, and to exclude many supportive examples.

Section B expands the view of the horizontal dimension of decision-making and introduces the concepts of: knowledge, rationality, and reality. This section differentiates between objectivity and subjectivity in terms of reality. It also hints at the concept of cognitive schemata by showing that people structure artificial order because they cannot comprehend chaos.

B. THE HORIZONTAL LEVEL OF DECISION-MAKING

*Science, like art, religion, commerce, warfare,
and even sleep, is based on presuppositions.*

--Gregory Bateson

*By education most have been misled;
So they believe, because they so were bred.*
--John Dryden, The Hind and the Panther

Consider the scenario of a nearsighted person attempting to read a sign from a distance. At first the letters may be blurred and difficult to distinguish. As concentration is increased the mind tries to analyze the context in which the sign is presented, the length of the words on the sign, and the positions of any distinguishable letters. At some point a degree of recognition and sense is accomplished and finally the previously blurry letters become clearer. It may seem that the concentration increased the clarity of the eyesight. However, closer inspection sometimes reveals inaccuracies in the person's interpretation of what he or she saw and read. The reason for this is because the mind compares input stimuli with data it has stored in short-term memory (context, etc) and long-term memory (similar experiences giving rise to expectations and perceptions, etc). Some words are similar to others in pattern association (length, letter grouping, etc), and in the above scenario, one may eventually "clearly" see a word that is different from the actual word present.

This is analogous to the decision-making process. When gathering evidence, one may "clearly" see facts which are not there but which appear to be present due to expectations and perceptions.

Selective awareness is a problem for us all. We filter our awarenesses unconsciously, so that the data of which we are aware is often incomplete and skewed.²⁶

These expectations and perceptions may be built upon experiences, prior partial knowledge regarding the subject, culturally derived beliefs, and ideas, etc. The horizontal dimension of strategic planning ranges from logic and rationalism to subjective emotionalism. Figure 2 is a partial recreation of the model of political decision-making which was presented in Figure 1. The diagram represents the horizontal dimension discussed here.

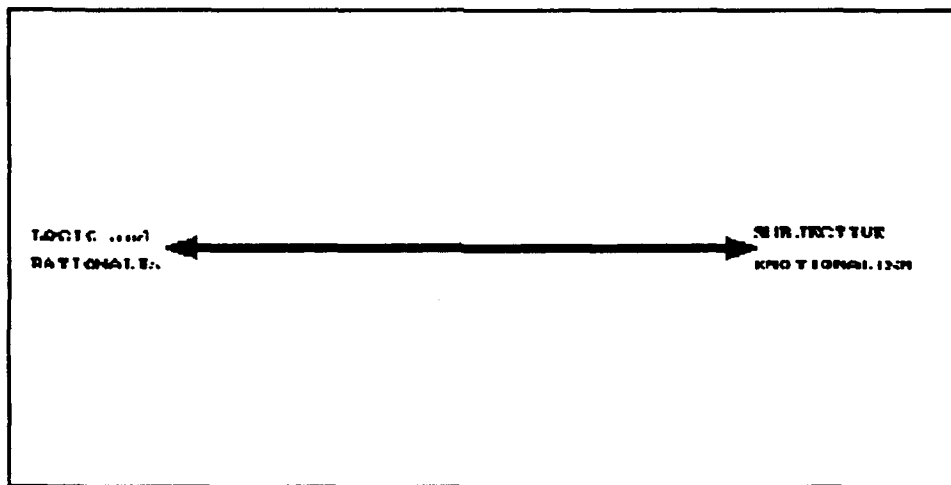


Figure 2 Horizontal Dimension of Decision-Making

²⁶ Pneuman, Roy and Margaret Bruehl, Managing Conflict, (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1982), 13.

It was shown earlier in the thesis that political leaders seldom, if ever, operate totally under the auspices of Subjective Expected Utility (SEU) theory. It was also shown that important international issues are at times decided on the psychological and emotional needs of the decision-maker. This part of the thesis will look at some of the variables of the horizontal level of political decision-making and particularly at how they may alter the decision-maker's perspectives.

1. KNOWLEDGE, RATIONALITY, AND REALITY

Each of the above topics are singularly broad in scope, though volumes would not do justice only a few paragraphs will be allotted here. In a manner typified by Western philosophers, reality is usually considered in terms of being either subjective or objective. It is not the intent of this thesis to delve into the philosophic issues of reality. However, it is necessary to acknowledge the two trends of thought.

The subjectivistic view of reality is highly influenced, if not constructed, by the person perceiving it. Thus, reality is unique to the individual. "Information in this view is not emergent from a real objective world and then extracted; it is constructed by the person."²⁷ This is best

²⁷ West, Charles, The Social and Psychological Distortion of Information, (Chicago: Nelson-Hall, 1981), 8.

epitomized by the encoding-decoding theory of interpersonal communications. Briefly stated, this theory says that the receiver never receives pure information from the sender. In the process of communication the "pure" information is encoded by the sender, and then decoded by the receiver. This encoding and decoding is accomplished through language, perceptions, culture, etc. In the subjectivistic view, this decoding is extended to all external inputs, not just human communication. To the subjectivist something is always lost or altered in the translation. (The chapter on reality will contain more on the mechanics of this process).

The objectivistic view is quite different from the subjectivistic one. It believes in truth existing as pure information, knowledge, or fact. In this view there is nothing hidden anywhere, it is all just waiting to be found. "In the objectivistic view, information is embedded in the world and extracted from the world."²⁸ To the objectivist, knowledge is information and can be accurately communicated as undistorted truth.

Somewhere in between the subjective and objective views of reality is subjectivistic relativism. In this view it is not the subject nor the object which is important. Though both may surely exist, it is the relationship between them which constitutes reality.

²⁸ Ibid., 9.

In the relativistic view, an item of information derives its status and its existence from its relationship to the person and from its relationship to all other information. When we look at one event we find it connected to every other aspect of the universe. It is impossible to know an object in its own right. We know it in its inter-relatedness to other objects and to us.²⁹

Philosophy is not the only discipline to which subjectivistic relativism applies. It perhaps received its greatest notoriety in physics with Einstien's theory of relativity. The publication of this theory, along with Heisenberg's theory of quantum mechanics, led Karl Popper to conclude that: "The empirical basis of objective science has thus nothing 'absolute' about it."³⁰

Thomas Kuhn, a physicist/historian, alluded to how perspectives alter scientific theories in his The Structure of Scientific Revolutions.³¹ Throughout it he proved that the observer and the object being observed are intrinsically interrelated. "Kuhn has shown us that in science the... experimenter and experiment, are somehow one movement."³²

Before leaving the tenets of physical science and returning to social science another aspect of interrelatedness bears mentioning. Working with details of the correlation

²⁹ Ibid., 11.

³⁰ Popper, Karl R., The Logic of Scientific Discovery, (New York: Basic Books, Inc., 1959), 111.

³¹ See: Kuhn, Thomas, The Structure of Scientific Revolutions, (Chicago: University of Chicago Press, 1976).

³² Briggs and Peat, 1984, 34.

between paired particles, developed by J. S. Bell, the French physicist Alain Aspect experimented with split photons. Two correlated split photons (A and B) were fired in opposite directions and while they were still in flight a polarizing filter was put in front of photon A. "The results showed that the photon twin at B seemed to 'know' what had happened to the twin at A."³³

The possible existence of objective reality is not denied, however such debates are best left to philosophers. Exploring the process of political decision-making must entail a subjective approach to reality because it is more important to consider how people perceive abstract concepts than how the concepts really are. An example of the importance of this concept is the fear of nuclear first-strike vulnerability coupled with misperceptions of an opponent's intentions.

So I repeat: U.S. and USSR reciprocal fears of first-strike vulnerability persist. They are real. And, in a crisis, it matters what the other side believes--not what is objectively true.³⁴

Objective reality is more important to someone seeking truth, which is not necessarily congruent with seeking knowledge or understanding. There may be absolute knowledge, truth, etc. as the objectivists argue, but when dealing with the tangibility of human decision-making it is more important to consider how people perceive such abstracts than how they

³³ Ibid., 88.

³⁴ McNamara, 1986, 51-52.

really are. Therefore this thesis will maintain a subjective approach to reality.

Reality is the application of reason. Reason depends on the application of a person's culture/customs to their epistemic development. Therefore, both reason and reality are concepts unique to each individual (although the observed degree of variance among individuals may be minuscule) and may (i.e. probably) change over time. Royce grouped questions of how knowledge effects perceptions together with questions of reality and meaning.

Because what and how we know lie behind our world views and because 'epistemic styles' are key manifestations of what we are....[T]he major point being that men of differing world views reflect limited or encapsulated images of reality as a function of their psychoepistemological profiles.³⁵

The fact that people are different is generally agreed upon, it is the degree of difference which is arguable. Later chapters will focus on how differences in perspectives are formed, and whether traits exist universally across cultures.

2. STRUCTURING ORDER OUT OF CHAOS

Rationality generally equates to the predictability which follows convention. If someone behaves in a manner which is considered by society to follow a form of Subjective Expected Utility (SEU) theory, (see section A for more on SEU theory)

³⁵ Royce, quoted in Carterette, Edward and Morton Friedman, ed., Handbook of Perception Vol I: Historical and Philosophical Roots of Perception, (New York and London: Academic Press, 1974), 150.

then that person is said to behave in a rational manner. Usually this equates to the person behaving in a manner in which we would have if we were the actor involved.

Perhaps one of our greatest collective faults as individuals is the tendency to assume that the way we see things is the way they are and also the same way others see things. Yet...it is easy to recognize that no two persons can perceive reality in an identical way....The potential for misperception and conflict should be readily apparent.³⁶

The popular term for assuming other people see things the same way we do is "mirror imaging." We expect the other person to have the same desires and motivations as we do. Thus, they should act/react as we would in a given situation.

To say something has meaning implies the use of intellect, the use of intellect implies reasoning (either past and/or present), reasoning requires some point of reference. It is natural for one's point of reference to be one's own self. We relate situations to our experiences or to our understanding of other's experiences. "The idea of the frame of reference is only a convenient way of attempting to represent a person's history, experiences, leanings, needs, and in a sense, aspirations."³⁷

In a manner of speaking one could say that yesterday is never really gone, and there is no present. In our minds we dwell in the past, regardless of whether we project (or think

³⁶ Pneuman and Bruehl, 1982, 25.

³⁷ West, 1981, 21.

that we project) that past into the present or future. We continually try to recreate or correct past events using current or contrived future situations. **No new situation is approached tabula rasa.** Our minds are constantly comparing new stimuli with past events. **We structure artificial order because we cannot comprehend chaos.** Yet, defining the problem puts constraints on the possible solutions.

Still, it is always possible that the style of thought and conceptualization of particular problems may act as blinders. By directing the focus in a particular way, important aspects of decision-making are blocked off.³⁸

Often this is accomplished without our conscious awareness. William James said that when reading or listening, much of what we think we see or hear is not sensory input but actually supplied from our memory. Anthropologist\Philosopher Gregory Bateson tells us: "All experience is subjective, ...our brains make the images that we think we 'perceive'."³⁹

Man is not alone in having perceptions determined subjectively. Primitive cultures seem to integrate themselves more fully with their environment than does "modern" man. However, Reuben Abel shows that every organism is basically egoistic and its world revolves around its sensory awareness.

Sense awareness varies among species. Some animals have sensory avenues that humans lack, such as sensitivity to radio waves and to magnetic fields. Certain fish emit

³⁸ Press and Arian, 1966, 156.

³⁹ Bateson, Greogory, Mind and Nature, A Necessary Unity, (New York: E.P. Dutton, 1979), 35.

electrical impulses and sense their surroundings by the deformation of electric fields. Some birds sense changes in barometric pressure and polarized light. Thus every organism lives in the world shaped for it by its sensory apparatus.⁴⁰

An argument could be made that, effectively, each specie lives in its own world, shaped by its perception of its environment. This is how man developed the perception that he is the center of the world. Through such perceptions man has made himself the center of his world. "It is in the form of percepts that man grasps the evidence of his senses and apprehends reality."⁴¹

This does not imply that true reality exists only as man perceives it. What is said here is that man's most basic motivational force is himself and everything he does is somehow related to that force. Man's world revolves around man. This is just as relevant on an ecological level as it is on a personal level.

Hans Morgenthau's epic Politics Among Nations explains that personal perspectives play an important role in political realism. He states that no person can be characterized as one type or another, but rather as a composite of several types which he terms "economic man," "religious man," "moral man," "political man," etc. "Political realism is based upon a

⁴⁰ Abel, Reuben, Man Is The Measure, (New York: Macmillan Publishing Co., Inc., 1976), 29.

⁴¹ Rand, Ayn, Introduction To Objectivist Epistemology, (New York: The New American Library, Inc., 1966), 5-10.

pluralistic conception of human nature."⁴² How these different types may come together in the formation of an individual's perspectives is a primary concern of this thesis.

In an attempt to construct order, man often loses touch with the "big picture." Each person's functional reality is merely a microcosm representing his or her perception of reality.

In demonstrating how experience and knowledge have a primary role in establishing expectations and perceptions, West reports on several experiments regarding how people interpret stimuli.⁴³ Along with other researchers, West found that a "person's experience (including concepts)...has an impact on the recognition of stimuli."⁴⁴ In one experiment, the researcher presented different pictures in each eye of a stereoscope to subjects from North America and Mexico. In one eye was presented the picture of a baseball player. In the other eye was a slide of a bullfighter. "Most North Americans tested recognized the baseball player whereas most Mexicans recognized the bullfighter."⁴⁵

In another experiment the researcher had people with different backgrounds read the same prose passage and then

⁴² Morgenthau, Hans, Politics Among Nations, 5th ed., (Alfred Knopf, Inc., 1973), 14.

⁴³ West, 1981, 21-36.

⁴⁴ Ibid., 29.

⁴⁵ Ibid., 29.

take multiple choice tests on the material read. Some of the subjects had backgrounds in physical education and some in music. The results indicated the backgrounds of the subjects had a strong influence on their interpretations of the prose.

In yet another experiment West reported that the researchers found evidence indicating that the way a person organizes data (cognitive schema) influences perception and recognition. "Their data indicate that when persons are confronted with unfocused photographs and asked to identify the object in the photograph as it is gradually focused, the early hypotheses tend to interfere with later correct identification."⁴⁶ This further indicates that cognitive schemata influences the learning of new data (knowledge) and, most importantly, problem solving and decisions-making. (There will be more on the subject of schemata in later chapters).

⁴⁶ Ibid., 34-35.

C. SUMMARY

This chapter began by introducing a model of political decision-making in two dimensions. The model represented the vertical dimension as the decision's range of importance. The horizontal dimension stretched from subjective emotionalism to logic and rationalism. The thesis is that most decisions fall somewhere between the two extremes.

This was followed with Section A dealing largely with game theory. The precepts of game theory lie on or near the far end of the horizontal dimension which pertains to logic and rationalism. Through reviewing the work of other researchers it was noted that many crisis-related decisions, or decisions requiring reaction, violate the principles of rationality. Game theory's narrow focus and insistence on simplicity has drawn much criticism pertaining to its ability to accurately reflect psychological or political realism.

Another basic assumption of game theory was shown to be that of actors making only rational choices based on maximizing their expected utility. The subsection on Subjective Expected Utility (SEU) reported on experiments conducted using game theory in situations involving risk and uncertainty. Included in this subsection was a summary of a study on the psychological processes involved in US and Soviet defense policy-making as it applies to nuclear weapons. The findings throughout were that human behavior does not perform

in accordance with SEU theory. This includes political decisions as important as nuclear war policy.

The structure of games may easily lead to the availability of only a limited number of alternative solutions. Game theorists claim to isolate the relevant factors, and that only these factors will be pertinent to all "rational" people, in all times, and for all situations in which the game may be employed. It was shown that doing this puts artificial boundaries on rationality, restricts the possible decisions, and is unrealistic.

Subsection 2 pointed out there are no laws which are pertinent to all people in all times. It demonstrated that even the "absolutes" of physical science have changed with scientists' perception of reality. This thesis suggests that such laws should not be considered as constants but as points of reference from which to expand our knowledge and understanding of ourselves and our environment. However, if not viewed in their proper context, these points of reference can limit as well as expand.

Section B gave an expanded view of the horizontal dimension of political decision-making and focused on factors influencing the formation of perspectives. Along the way it introduced the concepts of: knowledge, rationality, and reality; and differentiated between objectivity and subjectivity in terms of reality. It decided debates concerning objective reality are best left to philosophers.

The thesis strongly supports exploring the process of political decision-making using an subjective approach to reality.

How a person receives, perceives, stores and retrieves knowledge has a great influence on his or her formation of concepts, perceptions, and ultimately, decisions. "Psychological research supports the thesis that our knowledge strongly influences how we perceive new stimuli and construct new information."⁴⁷ No new situation is approached *tabula rasa*. Our minds apparently organizes data in a manner with which it can compare new information. The thesis suggests the concept of cognitive schemata by showing that people structure artificial order because they cannot comprehend chaos. This artificial order, or functional reality, is a microcosm of reality and it may cause people to lose touch with the "big picture."

⁴⁷ II ., 36.

III. REALITY--FACT OR FANTASY?

In chapter II it was shown there no universal "laws" which are pertinent to all people in all times. That section illustrated how even "laws" of physics and mathematics may only reflect a transitory human understanding. As such they serve as a point of reference for expanding or sometimes limiting our knowledge. But, if there are no universal laws, no constants throughout time, then what is the thing we interact with daily which we refer to as reality? Is this reality fact or fantasy?

Chapter II also spoke of reality as the application of reason. It further explained that reason depends on the application of culture and custom to a person's epistemic development. If that is true, then it is easy to see that reality is a concept that is subjective. It is unique to each individual. This chapter continues the theme of subjective reality as applied to the concept of self.

A. THE SELF-CONCEPT

Each person sees themselves not as a person, but as a "symbolic self"⁴⁸ This symbolic self, or self-concept, helps determine the behavior of the individual. If a male typifies himself as a "John Wayne" or a "Rambo," then his behavior will exhibit the attributes which he sees portrayed by that particular character. Likewise a person may approach a situation with the conscious thought of how someone like Jesus Christ or Gandhi would react in that given situation. "What we admire, we emulate."⁴⁹ Such emulation is an attempt to more closely align the admirer's self-concept with the symbol(s) of their role-model. In effect, they are trying to become that person--or more accurately stated, their perception of the person.

As an example, consider why someone might persistently expound the virtues of freedom, justice, equality and democracy with the unending zeal of a fundamentalist preacher. It may well be that this person believes in these ideals as objective truths of which it is his or her duty to crusade. If so, then perhaps the crusade causes the person to see themselves symbolically as some combination of Plato, Patrick Henry, Adams, Hamilton, Madison and Jefferson, etc.

⁴⁸ Hayakawa, S. I. Symbol, Status, and Personality, (New York: Harcourt, Brace & World, Inc., 1958), 36-50.

⁴⁹ Ibid. 45.

Or it may be that this person admired whatever qualities he or she saw in these people. If this is the motivation, then in trying to emulate them (symbolically become them), he or she may be acting out the part which the role-model(s) may have played had they been presented the situation. Doing so would provide justification for the particular self-concept. Even so, the part played would represent the symbol of the role-model(s) not the actual person(s).

Another possible reason for such a crusade may be to justify sanctioning taboos which were learned early in the individual's social development. This may be especially valid if the taboos are incongruent with the concepts expressed, and if such taboos may be more socially acceptable now than when they were first learned.

However the "process" may have begun, it develops into a self-perpetuating cycle or tautology, with one "process" feeding the other. In this way the concepts become internally strengthened. They also become more resistant to change and a more powerful influence on perspectives.

B. ENCAPSULATED MAN/LIFE SPACE THEORY

Borrowing from Royce⁵⁰ this thesis terms subjective perceptual-reality the "Encapsulated Man Theory." This theory is also related to the theory of Life Space,⁵¹ however, Royce's term is more appropriate to the present work.

Perspectives are encapsulated in an illusion created by one's beliefs and culture. Enclosed within this illusion, or "transparent bubble,"⁵² is one's self-perception, or "symbolic self"⁵³ This self-perception, or Self, is developed through the influences of genetics and the individual's experiences in life. But, more than just the experiences, it is important to note that how one responds to those experiences helps to shape the Self.

Outside of the Self, but still within each individual's "bubble" of life space, is one's perception of reality. This concept is formed by one's perspectives of other people and by interacting with them and their perceived reality. "Our perceptions of other people, of how they relate to one another

⁵⁰ Royce, Joseph, The Encapsulated Man: An Interdisciplinary Essay On The Search For Meaning, (Princeton: Van Nostrand-Reinhold, 1964).

⁵¹ Baumgartel, Howard, Notes on the Concept of the Life Space, (Lawrence: Kansas University, 1958), and Pneuman and Bruehl, 1982, 23-31.

⁵² Pneuman and Bruehl, 1982, 23.

⁵³ Hayakawa, 1958, 36.

and to their world, and of how they relate to us, the perceivers, constitute our 'perceived' reality."⁵⁴ This is how people make sense of their social reality. It is this combination of Self and perceived reality which form the basis of the Encapsulated Man theory. The representation of this is shown in Figure 3.

Each person operates within the confines of the illusion which they have created for themselves. (The term "self-created" is used here to emphasize that each person has a will of their own, as opposed to being driven strictly by stimulus-response behavior).

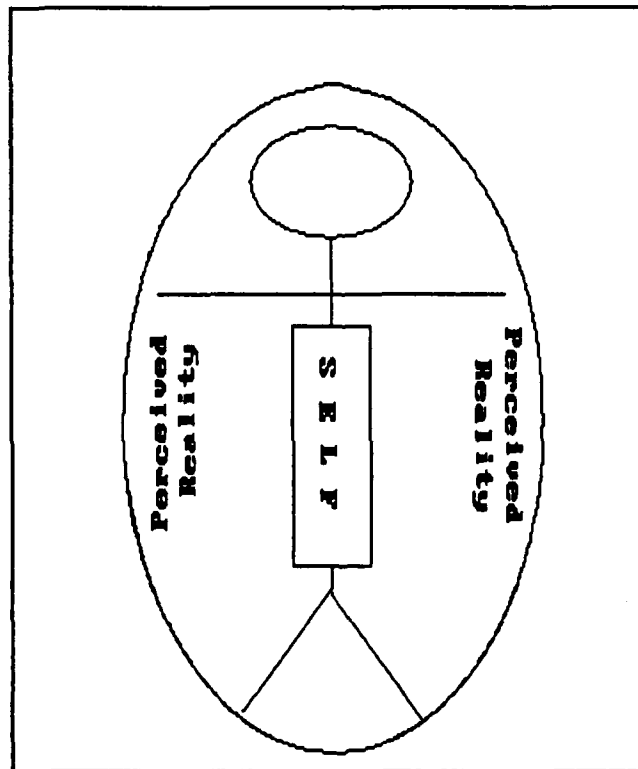


Figure 3 Encapsulated Man Theory

⁵⁴ Pneuman and Bruehl, 1982, 23-25.

This is analogous to the section in chapter II which demonstrated that each specie in nature lives in the world which is uniquely shaped for it by its senses. It bears repeating here that this is how man developed the perception that he is the center of the world. Each person's "reality" is shaped by their own personal experiences and their perception of how other people and objects relate to them. "Each of us sees, then, not the reality that exists without the bubble, but a caricature or distorted picture of reality."⁵⁵ This is in agreement with the ancient Greek philosopher, Protagoras, when he claimed that man is the measure of all things.

William Shakespeare once compared mankind's social interactions to actors on a stage with each person playing out their role. If one's perspective of reality is tempered through the egoistic nature as presented in the Encapsulated Man theory, then each person must see themselves, not JUST as an actor, but as THE leading man or woman. It is not the importance of the actor that is different, but the individual's perception of the role that is cast. In this light, each individual sees every other person as supporting actors. The current "play" being performed (in the mind of the individual) may call for a humble servant of mankind or the "script" may involve a figure destined for greatness.

⁵⁵ Ibid., 25.

Speaking metaphorically, the shape of the bubble acts like a prism. It filters external events (objective reality?) into internal perspectives. It is important to note that the shape, or form, of one's illusory bubble of reality will change somewhat throughout one's life. It appears though, that the dominant influences relate to one's values and belief systems. (See chapter VII). As long as these remain fairly constant, Then the shape of the bubble will not be drastically altered.

The concept of subjective reality may not be readily accepted by all people. There is a tendency for people to believe that they perceive things objectively. They think that they see things the way they really are. Since it is the way things are, then others must see them the same way.

Yet, according to the concept of Life Space, it is easy to recognize that no two persons can perceive reality in an identical way. It is apparent that our perceptions of reality are inherently subjective, and that the data entering our consciousness is, therefore, different for each of us. As a result, each of us responds not to reality, but to a different distortion of reality. The potential for misperception and conflict should be readily apparent.⁵⁶

To be effective in understanding someone's motives one must be able to empathize and understand the other person's perception of the issues. This is particularly relevant when considering decision-making in international politics. "Misattributing motives and intentions is a central thread

⁵⁶ Ibid., 25.

that potentially runs through all international relations calculations."⁵⁷

When determining someone's reasoning, people generally will see what they want to see, and having reached a conclusion they will try to justify it. "We see what we want to see, and the more we see it, the more likely we are to reinforce this distorted perception."⁵⁸ As has been shown here, such conclusions are based on subjective concepts of reality. Each individual's concept of reality is uniquely tempered by their life experiences and perceptions of others.

⁵⁷ Fisher, 1988, 33-34.

⁵⁸ .Weinberg, Harry, Levels of Knowing and Existence: Studies in General Semantics, (New York: Harper & Brothers, 1959), 29.

C. SUMMARY

The chapter began by continuing the theme of subjective reality as it applies to the concept of Self. It observed that each person sees themselves as a "symbolic self." This symbolic self, or self-concept, helps determine the behavior of the individual. When one emulates someone they admire, it is an attempt to more closely align the admirer's self-concept with the symbolic Self of their role-model.

An example was given of how some people persistently exhort, or otherwise strongly exhibit, ideals to the point of perhaps appearing to wear them like a cloak of righteousness. Three possible reasons were presented for such crusading action. One reason was that he or she may believe in these ideals as objective truths existing somewhere in Plato's heaven of ideas, or as lofty prizes to be won.

Another possible reason for the type of action depicted in the above example may be an attempt to emulate some person or persons which displayed admirable qualities. Doing so was described as an endeavor to symbolically become the admired person. This would cause them to act out the part the way they believe the particular role-model would in a similar situation.

As a society changes, so do the behavioral norms which it expects and accepts. The third reason for the behavior in the given example may be to justify the sanctioning of taboos

which were learned early in the individual's social development. It was asserted that this may be especially valid if the taboos are more socially acceptable now than when they were first learned.

Section A concluded that regardless of the motivation, the process develops into a self-perpetuating cycle, thus internally strengthening the concepts. This also causes the concepts to become more resistant to change and a more powerful influence on perspectives.

Section B developed earlier presented concepts into what it refers to as the "Encapsulated Man Theory." This theory claims that perspectives are encapsulated in an illusion created by one's beliefs and culture. Within this "bubble" is one's self-perception, or Self, as well as one's perception of reality. Influences of both concepts include: genetics, perceptions of others, experiences, and how one responds to those experiences.

A reason expressed for why some people may not readily accept the concept of subjective reality was the tendency to believe that they actually see things in an objective sense. Then, through the process of mirror-imaging, they attribute the same perspectives to other people. Yet it was shown that no two people can perceive reality in an identical way. Reality, much like rationality, is a concept which is unique to each individual.

IV. HISTORY and IDEAS

History implies a continuity of something more than time... --Erich Kahler, Man The Measure.

Every shift in the course of events changes the bearing of the past upon the present.

--S. P. Lamprecht, Nature and History

History affects perceptions in two important ways. One way is how history is interpreted. Another way history affects perspectives is through the culturally based development of social standards and individual personalities.

The subject of history also holds relevance to the formation of perspectives because it pertains to man's relation to the world that surrounds him. Perspectives are partially based on values, ideas and ideals which develop and change over time. History records the events which mark these changes. The "Encapsulated Man Theory" (see chapter III) stated that how people differentiate themselves with their surroundings determines their concepts of Self and reality. "The differentiation of man's relation to the human community develops the human individual."⁵⁹

This chapter looks at history from three different, but complementary, viewpoints. The traditional viewpoint takes the form of historical analogies. Often this is an endeavor

⁵⁹ Kahler, Erich, Man the Measure: A New Approach To History, (New York: George Brazeller, Inc., 1956), 19.

to overcome Santayana's warning to either learn from history or repeat it.

Another view which is looked at is that of psychohistory. The concept here is that as culture evolves it will accept, and indeed expect, behavioral norms which perpetuate that particular people--during that particular period of time. In so doing it helps to shape the sociological outlook of its people.

Historicism is similar to psychohistory and is the third view which is looked at. Historicism is the study of the history of ideas in light of how the ideas affect events. Certain ideas become prominent during any period of time. These ideas further influence people's perspectives and, at times, are accepted by some people as "universals," or natural laws, etc.

A. HISTORICAL ANALOGIES

As shown later in the chapter on cognitive constructs, historical analogies are based on inferences and amount to a type of simplification strategy. It is an attempt to assign order to disjunctive knowledge of events and intentions. Doing so often results in action reminiscent of the cliché of trying to fight the last war. Tetlock states that such "cognitive economy and efficiency" is highly susceptible to error. "Reliance on simple historical analogies raises the risk of overlooking important differences between one's preferred precedent and the current problem (for example, the Vietnam War differs in many respects from the diverse contemporary conflicts to which it has frequently been compared: El Salvador, Nicaragua, Afghanistan, Lebanon, Angola, Ethiopia, and Cambodia)." ⁶⁰

As with most types of analogies, frequently historical analogies are not grounded in fact. Instead they have their base in emotion, and emotion has a unique way of clouding one's perspectives. It causes a reluctance to modify preconceptions when the facts present contrary evidence. This may cause one to cling to incorrect assessments or fail to see flaws in their policy.

⁶⁰ Tetlock, et al., 1989, 342.

When used in this manner, historical analogies may be more of a justification for a policy rather than a motivation. Historical analogies may be used to gain or thwart support for some political or military action. This is represented by sayings like "The war to end all wars," and the "no more Vietnams" syndrome.

Historical analogies play an important part when political leaders try to determine the perspectives of their counterparts. It is often more important to anticipate how they are programmed to perceive issue at hand than the formal substance of the issue itself. "While it may be important to check the historical facts, knowing how that history is remembered may be more to the point..."⁶¹

Although the political motivation for using historical analogies may have dubious origins, if the use is effective the ends must be considered. The effective use of historical analogies is an excellent way for bonding together members of a group or nation and for developing attitudes regarding some situation or event. "The attitudes men take toward historical events may profoundly affect their expectations about the future, thus sometimes influencing their actions."⁶² The use

⁶¹ Fisher, Glen, Mindsets: The Role of Culture and Perception in International Relations, (Yarmouth: Intercultural Press, Inc., 1988), 4.

⁶² Deininger, Whitaker T., Problems in Social and Political Thought: A Philosophical Introduction, New York: The MacMillan Company, 1965), 324.

of historical analogies is a search for continuity in understanding. Its use is an endeavor to fabricate order if one is unable to legitimately define it.

B. PSYCHOHISTORY

Psychohistory differs from history as a discipline in the respect that history is a narrative which tells what happened, while psychohistory focuses on why it happened. Psychohistory is somewhat of a marriage of history with psychology and anthropology. It looks for correlations between events, or behaviors, and human motivations.

Two main divisions of psychohistory are psychobiography and group psychohistory. As their names imply, the former division looks at events in a person's life and times which formed his or her particular perspectives, while the latter division looks at patterns in society as a whole. Since this thesis is theoretical it has been necessary to omit lengthy case studies or focusing on individuals. Although the two divisions are intricately interrelated, the focus of this section will be on group psychohistory.

In order to deal with events, as opposed to understanding them, they are classified as things which have both a definite beginning and a definite end. Wars and revolutions are prime examples. Neither one ever begins spontaneously, nor is their fervor satisfied on the date of resolution. The process of considering abstracts as if they were physical objects can be extended to ideas about historical events. "Events like wars, economic changes (e.g., the Industrial Revolution), nations,

artistic movements are all talked about as if they were substances concealed behind external appearances."⁶³

Societies evolve in a kind of Maslowvian hierarchy. However, evolution denotes change, not necessarily progress. If a given society's primary concern is survival against attack from outside of the group, then it may pride itself in community cohesiveness and growth. If another society's focus is on its inability to provide subsistence and other basic needs, then it may not hold high regard for human life--and other such civilized notions. "The socioeconomic structure of a society molds the social character of its members so that they wish to do what they have to do."⁶⁴

An example of this is infanticide. Infanticide is considered by many Westerners to be a barbaric method of population control practiced only by "backward" Far Eastern cultures and Aborigines. However, noted historian William L. Langer reports that both infanticide and exposure were actually widely accepted among most Western societies throughout the nineteenth century. In fact, it was 1938 when Parliament enacted the Infanticide Act.⁶⁵

⁶³ Boas, George, The History of Ideas, (New York: Charles Scribner's Sons, 1969), 33.

⁶⁴ Fromm, Erich, To Have Or To Be?, (New York: Harper & Row, Publishers, Inc., 1976), 133.

⁶⁵ Langer, in de Mause, Lloyd, ed., The New Psychohistory, (New York: The Psychohistory Press, 1975), 55-60.

The acceptance of infanticide alternately grew or waned over the centuries depending on socioeconomic needs of the time and location. For example, as the population of the declining Roman Empire suffered from epidemics, famine, and invasion there was no need to limit population growth. Quite the contrary, an increase in population was desired. This affected people's perspectives on the value of life, etc.

Psychohistorians support the premise that various socio-cultural periods greatly influence the psychological development of members of that culture. A prime example in near recent history is the era of the Victorian family. The taboos which were dominant during this period are attributed with contributing many social and medical myths and neuroses to society. These ideas in turn greatly affected the perspectives of the people involved.

If such premises are correct, then studying biographical factors interspersed within socio-cultural periods may be useful for understanding why someone believes certain ideas. It may also shed light on how certain ideas gain prominence. This would be especially true if particular psychological type could be correlated with certain ideas within some socio-cultural period. "And if there are psychological types with which typical ideas are correlated, and if in a period there is a predominant number of a given psychological type, then,

of course, the appropriate ideas will circulate at that time."⁶⁶

One must be careful though to avoid the dangers of falling, along with game theorists, into the trap of narrowly defined generalizations. However, it is necessary to look at all the pieces if one is to see the completed puzzle, or big picture, in the formation of perspectives.

⁶⁶ Boas, 1969, 163.

C. HISTORICISM AND IDEAS

Historicism is a philosophical term for the doctrine of regarding established truths of religion and philosophy as rooted in culture and historical situations. "The doctrine that all ideas are situated in historical epochs, that this value and truth are not eternal but relative to specific historical contexts, has been named 'historicism.'"⁶⁷ It is not the intention here to debate whether ideas, values or truths are time/culture-bound or eternal constants. The intention of this section is to show that different ideas, etc. gain or lose popularity during different periods of time. The degree of popularity has a great impact on the way people develop perceptions.

It will be shown in the chapter on cognitive constructs that people need perspectives in order to understand situations. As Fackenheim, asserts, they also require "timeless truths and values" on which to base their action. "Yet the perspectives which he finds often merely reflect his age; and what he accepts as timelessly true and valid is apt to be merely the opinion which is in fashion."⁶⁸

History is arranged to make time conform to some retrospective order. Thus after its occurrence, history is

⁶⁷ Deininger, 1965, 289.

⁶⁸ Fackenheim, Emil L., Metaphysics and Historicity, Milwaukee: Marquette University Press, 1961, 1.

segmented into centuries, eras or ages, epochs, periods, etc. to categorize ideas and their resultant events. Some examples of this are: the dark ages, the renaissance period, and the reformation.

From a macro viewpoint we can say that it is natural for certain ideas to be popular during particular time periods due to historical influences and current circumstances. Events strongly influence the ideas of man, which in turn influence man's action and create other events. A look in any book of philosophical history will prove this circular concept to be obvious.⁶⁹ Life can in some ways be compared with the popular children's role-playing game "Dungeons and Dragons" in which each event has various unknown outcomes independently determined by each player's action. Each outcome provides further challenges with unknown results. "Every shift in the course of events changes the bearing of the past upon the present."⁷⁰

One can only wonder what outcome the Russian Revolution of 1917 would have produced if Lenin had no role to play. Would Europe, and indeed the world, have been so ravaged by violence if the Allies had stood up to Hitler before his aggression developed into World War Two? What if Truman had not taken a

⁶⁹ For examples see: Zoll, Donald. Reason and Rebellion, Englewood Cliffs: Prentice-Hall, Inc., 1963.

⁷⁰ Lamprecht, S. P., Nature and History, (New York: Columbia University Press, 1949), 71.

strong stand against the communist invasion of Korea? What if the United States had allowed strategic nuclear weapons to be set up in Cuba? The "what ifs" could go on and on and still the only logical answer is that the world would be different from what it is today.

History abounds with examples of discontented philosophers rebelling against the world as they know it. From such people have come ideas which have reshaped the world. Following is a list of only some of the people and their basic ideas which have altered the foundations of the social/political world.

- Martin Luther - reform, emerging middle class.
- Rousseau - nature of man is good and peaceful, political order is unnatural, private property corrupts, inequality is immoral.
- Hume - denial of natural law based on causality, advocated self interest, morals as emotionally constructed attitudes.
- Locke - rational self interest, government by consent, individual rights based on natural law and experience.
- Calvin - Protestant work ethic (which helped the middle class emerge and further develop capitalism).
- Hegel - dialectic nature of reality.
- Marx - alienation with industry, value is labor, dialectic materialism leading to communism.
- Hobbes - social philosophy based on metaphysics and psychology, denial of natural laws.
- Machiavelli - ethics of glory, impact on fascism.
- Bentham - ethics of utilitarianism, majority will as standard for judgement of right and wrong.

Each person, at least in some part, is shaped by the era or period of time in which he or she lives. However, it is important to note that the effect may be either to agree or to disagree with the prominent ideas which are expressed. In addition, the intensity of agreement or disagreement will vary individually. Usually, personal views of ideology or philosophy are a result of "reacting to" as opposed to "acting with" them. An example of this would be the way the United States' founding fathers responded positively the ideas of John Locke while finding "repugnant the Calvinist reiteration of the evil in man."⁷¹

Some of the ideas which have affected mankind were listed earlier in this section. Here will be considered some of the reasons why people might react favorably to such stimuli. *"Probably one of the strongest factors for making such receptivity is one's admiration for the people who hold an idea rather than for the idea itself."*⁷² (emphasis added). This statement is just as valid at a group level as it is at an individual level. If true, it indicates that perspectives, and indeed decisions as well, may be more determined by influences than they are by information.

⁷¹ Feuer, Lewis S. Ideology and the Ideologists, (New York: Harper & Row, Publishers, 1975), 62.

⁷² Boas, 1969, 64.

It has long been held that most people are social creatures. Membership in a group often causes one to identify with ideas of the group. Thus one may agree in principle with some organization without agreeing with specific issues put forth by individual members. However, the more prominent the member exhorting the specific idea, the more generally will the idea be accepted by other group members.

The particular prestige of an organization extends to its programs, policies and ideas. People tend to accept the ideas of an organization or group whose prestige is high. In an academic environment, for example the more prestigious a professor's reputation, the more easily accepted are his or her ideas. This bears out regardless of how new or remote the ideas are to socially accepted norms.

It is important to note that the authority invested in an idea often helps determine its acceptability. Eric Fromm tells us that when the survival of the group was based on hunting, then competence was the basis of authority. However, when social groups evolved into social hierarchies, the necessity for competence gave way to social status. Thus authority, and assumed competence, became invested in the title of the person or group in charge. It is this assumed competence that lends credibility and acceptance to the given

ideas. This may cause people to become "blinded to reality by the fiction they believe."⁷³

Another way authority, and thus permanence, is invested in ideas is through institutions. Institutions, especially religious ones, play a large role in the formation and perpetuation of ideas.

In studying the history of ideas, it is essential to distinguish those which are incorporated in institutions, and therefore change slowly, from those which are the opinions of individual persons and are transmitted from man to man, and change more rapidly....All this suggests that when an idea is adopted by a group and put into practice, as in a church or state, its rate of change will be slow.⁷⁴

Finally, it must be said that group acceptance, including its ideas, promotes stability. Group stability promotes preservation. Self-preservation is an extremely strong motive for human behavior. So self-preservation is a function of group stability, and stability depends on the unification of the group.

The unification of the group is cemented with the ideas which it holds. "But since its stability will depend upon its unity, and since its unity will be largely, if not entirely, a matter of ideals, a society will incorporate an idea which it will also express in the form of an idea."⁷⁵ It is natural to accept the ideas of the group to which one belongs.

⁷³ Fromm, 1976, 36-39.

⁷⁴ Boas, 1969, 130-131.

⁷⁵ Ibid., 133.

The accepted ideas will have a bearing on the perspectives one holds or develops.

D. SUMMARY

This chapter looked at how history affects perspectives. It was decided that the subject of history holds relevance to the formation of perspectives because it pertains to man's relation to the world that surrounds him. This continued the line of thinking which was proposed in the previous chapter regarding the "Encapsulated Man Theory."

Three viewpoints concerning history were presented. They were: historical analogies, psychohistory, and historicism. In this section it was shown that historical analogies may be used to gain or thwart support for some political or military action. Historical analogies were viewed as a form of emotional support for opinions and as justification for policies not fully grounded with facts. Understanding one's views concerning historical events and analogies is important to comprehending their perspectives on the subject.

Psychohistory searches for correlations between historical events and human motivation. It focuses on why some particular event occurred. The example of infanticide was used to demonstrate how socio-cultural evolution influences ideas and perceptions.

The doctrine that truth is not a constant, but changes according to the whims of society in relation to history is called historicism. This section of the chapter showed how that as different ideas, gain or lose popularity the

perspectives held during that period will change as well. It is natural for certain ideas to be popular during particular time periods due to historical influences and other circumstances.

In this section a list was presented of some of the people and their basic ideas which have altered the foundations of the social/political world. Several reasons for why someone might favorably react to ideas were also presented. It was claimed that each person is shaped, in some manner, by the prominent ideas of the period of time in which he or she lives. The result may be an acceptance or rejection of the ideas. Whichever is the case, the ideas have a dominant effect on how one perceives reality.

V. NATIONAL CHARACTER AND INDIVIDUAL PERSONALITIES

The spirit of a nation is assumed to be something permanent embedded in the nation's many changes.

--George Boas, The History of Ideas

Now the only defense that any nation can have is the character and intelligence of its people.

--Robert M. Hutchins, ed. The Great Conversation

This chapter combines and expands on the concepts presented in chapters IV and V. It further develops the part which culture plays in developing perspectives. Section A begins by exploring the concept of universal traits and their possible effect on perspectives.

Next it looks at claims of how modal personality, or national character, may be affected by a community's form of subsistence. It is essential to bear in mind that such theories may have more relevance to cultures which developed without the benefit of global communications or intercontinental transportation.

Section A also considers self-perpetuation as a motivator at the national level. This is one basis for establishing customs and developing traits. When coupled with the desire to be understood and the need to associate with similar people, self-perpetuation becomes a driver of national character.

Section B takes a brief view of individual personality development. "Although once considered to be highly controversial, the major dimensions of personality are now known to show moderate heritability."⁷⁶ Biological approaches aside, this section focuses on socialization and its effect on personality. Where the first Section talked about means of subsistence developing modal personality types in immature cultures, Section B alludes that the reverse may be true in modern, transient societies.

⁷⁶ Buss, David M., "Toward a Biologically Informed Psychology of Personality," Journal of Personality, 58:1, March 1990, 4.

A. NATIONAL CHARACTER

"Many psychologists believe that certain universal psychological traits link all humans."⁷⁷ This belief stems from everyone sharing certain universal experiences like birth and physiological development, and extremes of sensory stimuli such as hot and cold, light and dark, etc. If it is true that these types of experiences at least partially shape our personality traits, then it must also be true that the way our culture treats these events help to develop a national character. This, in part, leads some people to think that it's "just human nature" to perceive things the same way they themselves perceive them.

Anthropologists claim to have observed patterns of societal characteristics which were dependent on the type of subsistence the group had. Some researchers have found strong character differences between societies which are pastoral as opposed to ones that are herdsmen. Still others have found groups which stock up their food (both herdsmen and farmers) tend to be a more cohesive group, dependent upon each other, and patient, as opposed to groups like city dwellers who forage for their subsistence and live from day to day. The latter group tends to be more impulsive and aggressive. To what degree the present interdependence of nations may alter

⁷⁷ Kottak, Conrad, Cultural Anthropology, 2nd ed., (New York: Random House, Inc., 1979), 213.

these assumptions is not known. Nor is it known to what extent genetics may influence the distribution of such traits. It is also important to note there is not universal agreement on this subject. "At the present stage of theory and research, in the social sciences at least, individual variation is not reducible to or subsumable under the heading of cultural patterns."⁷⁸

"The character of each individual is unique, for one individual's experiences never match those of another, nor is it probable that the constitutional components of any two persons are exactly identical."⁷⁹ Genetics, early imprinting, and role models may all play important parts in developing individual character and personality.

Early experiences in the womb would be unique to each individual, yet may be important in the development of affect and personality. Medical studies suggest that ingestion of drugs, alcohol and tobacco by a pregnant woman causes birth defects. They probably have an effect on the development of neural connections in the unborn child as well. This may influence the child's cognitive schemata, and thus how he or she groups and stores images, experiences, patterns of thought, etc. Each of these items later affect how the person

⁷⁸ Press and Arian, 63.

⁷⁹ Shapiro, Harry, ed., Man, Culture, and Society, revised edition, (London, Oxford, New York: Oxford University Press, 1971), 220.

perceives new phenomena. Although logical assumptions can be made in this area, it is difficult, if not impossible at the present time, to empirically test such assumptions.

It has been observed elsewhere in this thesis that self-preservation is a keen motivator of human behavior. The desire for self-perpetuation is nearly synonymous with this type of motivation. This desire is coupled with the need to be understood, and thus with the need for association with people of similar background, beliefs and experiences. Multiply these needs by the people that make the particular social group and apply this factor to the generations of shared commonality and it equates to national character.

People tend to perpetuate the particular customs and ideas which they or their ancestors originated. When the customs, ideas or traits are shared by a large group or nation then this perpetuation becomes the basis of national character.

People everywhere seem to be more interested with identity than with world unity. Reinhold Niebuhr commented on the relationships of individuals and the community as expressed through social experience.

The individual and the community are related to each other on many levels. The highest reaches of individual consciousness and awareness are rooted in social experience and find their ultimate meaning in relation to the community.⁸⁰

⁸⁰ Niebuhr, Reinhold, The Children of Light and The Children of Darkness, (Charles Scribner's Sons, 1960), 50.

Charles Manning has observed that the identity which people seek often affects their perspectives. One way this is accomplished is in the manner of "The enemy of my friend is my enemy too."

However autonomous in principle, man does indeed relate his living to that of other men. Men think, judge, behave in relation with their like....If A's associates think one way and B's another, A and B will be predisposed, almost as by iron necessity, to differ.⁸¹

For nations, self-perpetuation becomes the foundation of nationalism and national interests. Nationalism is an expression of national character and has become increasingly a dominant motivator world wide. "What makes of nationalism a social force is the fact that people feel it, and are moved by it to do things."⁸² The national interests of a state generally reflect the state's relative standing with respect to its hierarchy of needs. The hierarchy is based on a continuum from survival to comfort and leisure. In order to understand a country's national interests one must look at that nation's culture, tradition and history. This is what determines the national character of a nation's people.

⁸¹ Manning, Charles A. W., The Nature of International Society, (New York: John Wiley & Sons, Inc., 1962), 79.

⁸² Ibid., 169-170.

B. INDIVIDUAL PERSONALITY

Berger and Luckmann speak of "significant others" which have a direct role in a person's primary socialization. These are one's parents or other people with whom one encounters early in their lives that are "in charge of his [or her] socialization." These significant others define one's view of objective reality through the concepts of the "Encapsulated Man Theory" (see chapter III). "They select aspects of it in accordance with their own location in the social structure, and also by virtue of their individual, biographically rooted idiosyncrasies."⁸³ The ease or difficulty with which they obtain their subsistence may have a bearing on developing personalities and on perspectives as well.

As already noted, anthropologists have observed that various cultures in the same geographic area have different modal personality types, or character, according to their mode of subsistence. In countries, like the United States, which have a diverse spread of socio-economic possibilities the reverse may be true. People may locate themselves socially or geographically according to their basic personality type.

This is not to say that all farmers are of one personality

⁸³ Berger, Peter L. and Thomas Luckmann, The Social Construction of Reality: A Treatise In The Sociology Of Knowledge, (New York: Doubleday & Company, Inc., 1966), 120-121.

type and only associate with other farmers, nor that all professional people are of one personality type and associate only with other professions, etc. However, there is evidence to indicate that one's means of subsistence is a strong form of group identification and that people tend to associate themselves with like people.

C. SUMMARY

Psychoanalyst Abram Kardiner "asserted that a basic personality structure typifies the members of a given society."⁸⁴ This structure is a patterned way of doing things which Kardiner calls "cultural institutions," and includes patterns of subsistence, child care, feeding, family organization, rituals, religion, myths, etc. Kardiner argued that although these patterns vary from one culture to another, they operate with sufficient uniformity within a given culture. He claims this uniformity is responsible for developing similar psychological traits in all members of a given society.

Culture may tend to mold modal personality types, or national character, but people develop unique personalities according to their individual experiences in contact with the physical and social world. "Each man is a common type, molded by culture and society, and yet possessed of individuality that culture cannot submerge."⁸⁵

All of this taken together tends to indicate that there are no universal attributes of human nature. The common experiences which people seem to share (such as birth, child care, adolescence, old age, etc) are all approached

⁸⁴ Kottak, 1979, 217.

⁸⁵ Shapiro, 1971, 222.

differently in various cultures. People's actions/reactions and beliefs are molded and bounded by the culture in which they live. "The individual is the product of the whole socio-historical process, though he may reach a height of uniqueness which seems to transcend his social history completely."⁸⁶

National character, or a culture's modal personality, thus tend to affect both group and individual perceptual predispositions. "Since all persons in a given culture have some similar experiences and some unique experiences, we may expect that any given individual will have some communal perceptual predispositions and some very unique perceptual predispositions."⁸⁷ The reader should be cautioned however, that strategic errors in judgement have been made by placing too much stock in generalities.

⁸⁶ Niebuhr, 1960, 50.

⁸⁷ West, 1981, 36.

VI. DEVELOPMENT OF COGNITIVE CONSTRUCTS

There has been much psychological research to support the idea that previously learned concepts greatly influence how people perceive new stimuli. They also affect how people structure problems and formulate solutions. A person's experience and conceptual knowledge has a keen role in establishing expectations. "Previously learned concepts influence the ways a person senses, perceives, and thinks about new phenomena."⁸⁸

Once a concept or belief is formed, it is hard to change, even when presented convincing factual information which contradicts the existing belief. People tend to pay attention to information which supports their beliefs and ignore information which seems to disagree with their beliefs. There is never perfect information. Information is always tempered by our internal biases.

⁸⁸ West, 28.

A. MAKING INFERENCES

People assign positive qualities to nations they like and negative qualities to nations they dislike. In this way people often believe that close allies, especially countries with similar people like UK and US, will mutually support the same goals, whereas the policies of "enemies" are perceived designed to be harmful or not supportive of the same goals.

We tend to believe that countries we like do things we like, support goals we favor, and oppose countries that we oppose. We tend to think that countries that are our enemies make proposals that would harm us, work against us, work against the interests of our friends, and aid our opponents.⁸⁹

Another way of saying the same thing is that people believe what they want to believe. People want to believe the world is an orderly, understandable environment. To ensure that it is a way they can understand, they assign attributes according to association with familiar experiences.

This evaluation process, or the making of inferences, is natural and indeed necessary when classifying or categorizing new stimuli. "The misevaluation arises when we act as if our inferential knowledge were factual knowledge."⁹⁰ If this is true, then the questions become whether or not people always know what they want to believe, and how their beliefs are

⁸⁹ Jervis, Robert, Perception and Misperception in International Politics, (Princeton: Princeton University Press, 1976), 117-118.

⁹⁰ Weinberg, 1959, 20.

formed. Some decisions may be internally arrived at before they are consciously considered.

Once some particular belief is established, it is often difficult to change. This is especially true if a person's values are involved. "We ignore information that does not fit, twist it so that it confirms, or at least does not contradict, our beliefs, and deny its validity."⁹¹

Associating one's beliefs and values in a way which makes personal sense out of reality establishes the roots of one's formal system of norms. This results in attaching strong emotional defense mechanisms to these formal norms. It is easy to agree with Hall that attacking such norms may bring disastrous results.

Whenever violations of formal norms occur, they are accompanied by a tide of emotion. One can get an idea of how people feel about formal systems by thinking of a person who has been supported all his life by a very strong prop. Remove the prop and you shake the foundations of life. Deep emotions are associated with the formal in almost every instance.⁹²

An example of this is how one may feel a personal affront when their religious beliefs are criticized. Ways of behavior which are foreign to one's formal norms may be thought of as unnatural or impossible.

Most people are familiar with the saying: "First impressions are lasting impressions." It has been shown

⁹¹ Jervis, 1976, 143.

⁹² Hall, 1959, 97.

earlier in this thesis that the same is true for perspectives and beliefs. Once established, not only are they difficult to change but the mind may actually search for evidence to support the belief. This is true even if the actual facts do not support the predetermined conclusions.

B. STRESS AND ANXIETY

There is a large amount of supportive literature that indicates stress is a factor in the perception of relevant information. Some researchers claim that stress routinely sharpen the intellect while others say it detracts from one's ability to be effective. Pneuman and Bruehl assert that the level of the resultant anxiety is the determining factor of stress. "One could tentatively conclude that either high or low extremes of anxiety are associated with lower performance than are more moderate levels of anxiety."⁹³ They further found that moderate levels of anxiety tends to promote performance.

Holsti agrees with these findings. He writes: "There is also some evidence that persons experiencing intense stress tend to suffer increased cognitive rigidity, an erosion of general cognitive abilities, including creativity and the ability to cope with complexity."⁹⁴ This often leads the decision-maker to fall back on stereotypical correlations. He or she may establish a dominant percept with which to interpret new information. This percept is often borrowed from a similar situation or a lesson of history and is based on what the decision-maker expects to discover.

⁹³ Pneuman and Bruehl, 1982, 39.

⁹⁴ Holsti, in Tetlock, et al , 1989, 30.

As the stress increases so might the resistance to pressure. At some point the desire to relieve the stress-related pressure may cause one's priorities to shift or even an inability for effective decision making. In recalling the Cuban missile crisis and the stress experienced by the president and his advisors, Robert Kennedy wrote:

That kind of pressure does strange thing to a human being, even to brilliant, self-confident, mature, experienced men. For some it brings out characteristics and strengths that perhaps they never knew they had, and for others the pressure is too overwhelming.⁹⁵

There is not sufficient evidence to know if it is primarily the amount of stress that is important. That is, would equivalent results be obtain from applying the same amount of stress across a population sample? It is more likely that varying degrees of stress affect different people in varying ways. Furthermore, it is logical to assume that one becomes tempered or accustomed to operating in stressful environments and thus able to do so effectively.

⁹⁵ Kennedy, Robert F., Thirteen Days, (New York: Norton, 1969), 22.

C. VALUES AND BELIEF SYSTEMS

By the time we have reached adulthood we have tens possibly hundreds of thousands of beliefs concerning what is or is not true and beautiful and good about the physical and social world in which we live.

--Milton Rokeach, Beliefs, Attitudes and Values

This thesis does not deal specifically with the degree to which values, beliefs, concepts, etc. are interrelated, only with the fact that they are interrelated and thus affect the formation of perspectives and the outcome of any decision. Values may be considered as something with enduring qualities. The concept of value, as used here, is that of something abstract which is generally considered worthy of being sought after.

Beliefs are anything which could fit into the sentence: "I believe" It has been shown throughout this thesis that some beliefs, much like perspectives, change over time. The amount of change and the effect of the change depend on how central the belief is to one's formal belief system. "The more central a belief, the more it will resist change...[and] the more central the belief changed, the more widespread the repercussions in the rest of the belief system."⁹⁶

⁹⁶ Rokeach, Milton, Beliefs, Attitudes and Values, (San Francisco, Washington and London: Jossey-Bass Inc., 1972), 3. Pages 6-61 describe aspects of the belief system in some detail.

The centrality of the particular belief is a function of how the belief was derived. Beliefs obtained during the process of primary socialization are the most central. They are the most difficult to alter, the results of which may be disastrous. Such beliefs are give one their concept of a stable, dependable world and may include a wide range of beliefs. These are the "basic truths" which someone may regard as "objective reality."

For example, at some early point in a person's life it becomes second nature to expect the floor to be beneath their feet when they get out of bed. Beliefs of this type are often thought of as instinct, however evidence indicates they are learned behavior akin to finding one's mouth without guidance when one is eating. Imagine the dissonance which would be caused if one suddenly discovered they could no longer trust the floor to be where they expected.

Rokeach refers to these most central beliefs as "primitive beliefs" with a taken-for-granted constancy. Similar to Hall's analogy of a prop which holds someone up, (see Section A) Rokeach states that disruption of these beliefs may well cause one to question their ability to cope with reality. "Put another way, violation of any primitive beliefs supported by unanimous consensus may lead to serious disruption of beliefs about self-constancy or self-identity, and from this disruption other disturbances should follow, for example, disturbance in one's feelings of competence and

effectance;...it would lead one to question the validity of many other beliefs within one's belief system; it would produce a great deal of inconsistency within the belief system, that, to eliminate, would require major cognitive reorganization in the content and in the structural relations among many other beliefs within the system."⁹⁷

Other examples of central beliefs are concepts of family, parental roles, and the concept of one's own self. These types of beliefs help provide order in a person's life. When they are disturbed, or when one is caused to seriously question them, they may result in a complete upheaval of the person's psyche.

Belief in the credibility of an authority is considered a "derived belief" because it implies acceptance of other beliefs concerning the authority. This gives validity to an authority figure due to the office or position they hold. These beliefs have obvious implication regarding political, civil, and social arrangements. They also include ideological and religious beliefs. One expects these beliefs to remain constant, but the results of change would probably not be as disastrous as would changing more centrally held beliefs.

The more congruent a belief or system of beliefs is to one's own belief system, the more easily it is to accept. The person who exhibits beliefs similar to one's own beliefs will

⁹⁷ Ibid., 7.

be valued, and his or her ideas and information are more readily accepted as truth. The reverse is true regarding people exhibiting beliefs which are foreign to one's own. The information which they provide will often be questioned and be difficult to accept as factual.

Belief systems form the core or base of a person's cognitive schemata or structure. Like a matching game, they provide a standard for comparing new stimuli and for developing perspectives. Consistency of the structure is essential to maintaining order in one's life. "This consistency is another source of stability and resistance to change."⁹⁸ When one loses faith in their beliefs, especially the most central ones, their cognitive structure becomes disorganized and they may question their perspectives on reality.

⁹⁸ Pneuman and Bruehl, 1982, 42.

D. SUMMARY

This chapter has looked at the development of cognitive constructs. It stressed the idea that previously learned concepts have a great influence on how people perceive new stimuli. These concepts and beliefs also affect the way people structure problems and formulate solutions. "How they 'understand' events is a function of their beliefs about human nature, motivation, institutions, and the like."⁹⁹

People tend to accept information which supports their beliefs and to discount information which is incongruent with their own beliefs. Once a concept or belief is formed, it is hard to change. This is true even when presented factual information which contradicts the existing belief.

Section A discussed inferences. Inferences are based on association of the new information with prior knowledge. They can also be formed through accepting the beliefs of someone with whom one identifies. It was noted that it is not wrong to make inferences, but one should realize that the information derived from them is not always factual.

The next section discussed the effect of stress and anxiety on the decision-maker. "Emotional and valuational factors may override logic."¹⁰⁰ It was shown that the effect

⁹⁹ Deininger, 1965, 319.

¹⁰⁰ Pneuman and Bruehl, 1982, 49.

of stress generally equates to the amount of stress, the ability of the decision-maker to handle stress, and the experience of operating under stress. It is difficult, if not impossible, to determine unilaterally how stress will affect people. However, several researchers have found that moderate levels tend to promote performance while extremely low or high levels of stress can be associated with low performance.

Section C talked about values and belief systems. It was shown that the importance of beliefs depend on how centrally they are located in one's belief system. Some beliefs are so essential that determining they are false or inaccurate may entirely disrupt a person's life.

The manner in which information is structured within a person's cognitive schemata is important to how they understand and accept new information.

Apparently, when a person encounters an ambiguous array of potential information, the tendency is to impose some structured meaning from previous experience on it, and the person is then unwilling to surrender these. These structures inhibit accurate recognition when they are in error. This is clearly a form of resistance to change which can impede learning.¹⁰¹

"Finally, complex problems are more likely to be defined by the decision maker's beliefs, expectations, and cognitive and emotional predispositions than by the 'objective' attributes of the situation."¹⁰² This is one of the most

¹⁰¹ West, 1981, 34-35.

¹⁰² Holsti, in Tetlock, et al., 1989, 33.

essential concepts to understand when one is studying how perspectives are formed, and the influence they have on decisions which are made. Subjectivity is the key throughout.

VII. MODELING THE DECISION-MAKING PROCESS

Before I begin to explain to you in a general way what this system is about...I want particularly to impress on your mind that the most important ideas and principles of the system do not belong to me. This is chiefly what makes them valuable, because if they belonged to me they would be like all other theories invented by ordinary minds--they would give only a subjective view of them.

--P. D. Ouspensky, The Fourth Way.

This chapter is about modeling the decision-maker's perspectives. It is important to note that this thesis deals with descriptive theories, not predictive theories. This chapter presents modeling the process of forming perspectives which is closely aligned with models of short-term and long-term memory.

The models build on the Encapsulated Man theory using information presented throughout the thesis. The intent is to bring together the various concepts into the "big picture" of the process of decision-making. The thesis was designed to facilitate understanding the development of perspectives, and thus ultimately the decision-making process. Likewise, the models which are presented here are intended to help understand the process leading to the decision, not to predict what decision might be made.

A. MEMORY ACTIVATION

As with most models concerning decision-making, the approach taken in this thesis closely follows models relating to associative memory theory. The model presented here also borrows from interactive activation competition theory and constraint satisfaction network theory.¹⁰³

The basic premise of both the interactive activation competition theory and constraint satisfaction network theory is that the mind does not solve problems in a serial fashion using discreet steps. Instead, memory is accessed in a parallel distributed process across several (if not many) layers of brain cells simultaneously. Each unit (roughly analogous to neurons in models of the brain) is connected to many other units which, in turn are connected to many other units, etc.

When a unit is activated by external stimuli it will improve or degrade the activation of units to which it is connected. These units will then improve or degrade the activations of units with which they are connected, and so the

¹⁰³ For further information see: Rumelhart, David E., James L. McClelland, and the PDP Research Group, Parallel Distributed Processing: Explorations in the Microstructure of Cognition, Vol 1: Foundations, Cambridge: The MIT Press, 1986, 43-193; and McClelland, James L., David E. Rumelhart, and the PDP Research Group, Parallel Distributed Processing: Explorations in the Microstructure of Cognition, Vol 2: Psychological and Biological Models, Cambridge: The MIT Press, 1986, 8-121.

process continues. Although there are different theories as to the how and why of the activation of the connections, the approach presented here is that similar units will improve activation and dissimilar units will degrade activation. In Figure 4, unit "A" is directly connected to units: "B", "C", "E", "G" and "H" by some prior event or series of events. The units other than "A" are interconnected as represented by the lines. The small "s" and "d" represent whether these connections are similar or dissimilar. (A type "s" connected

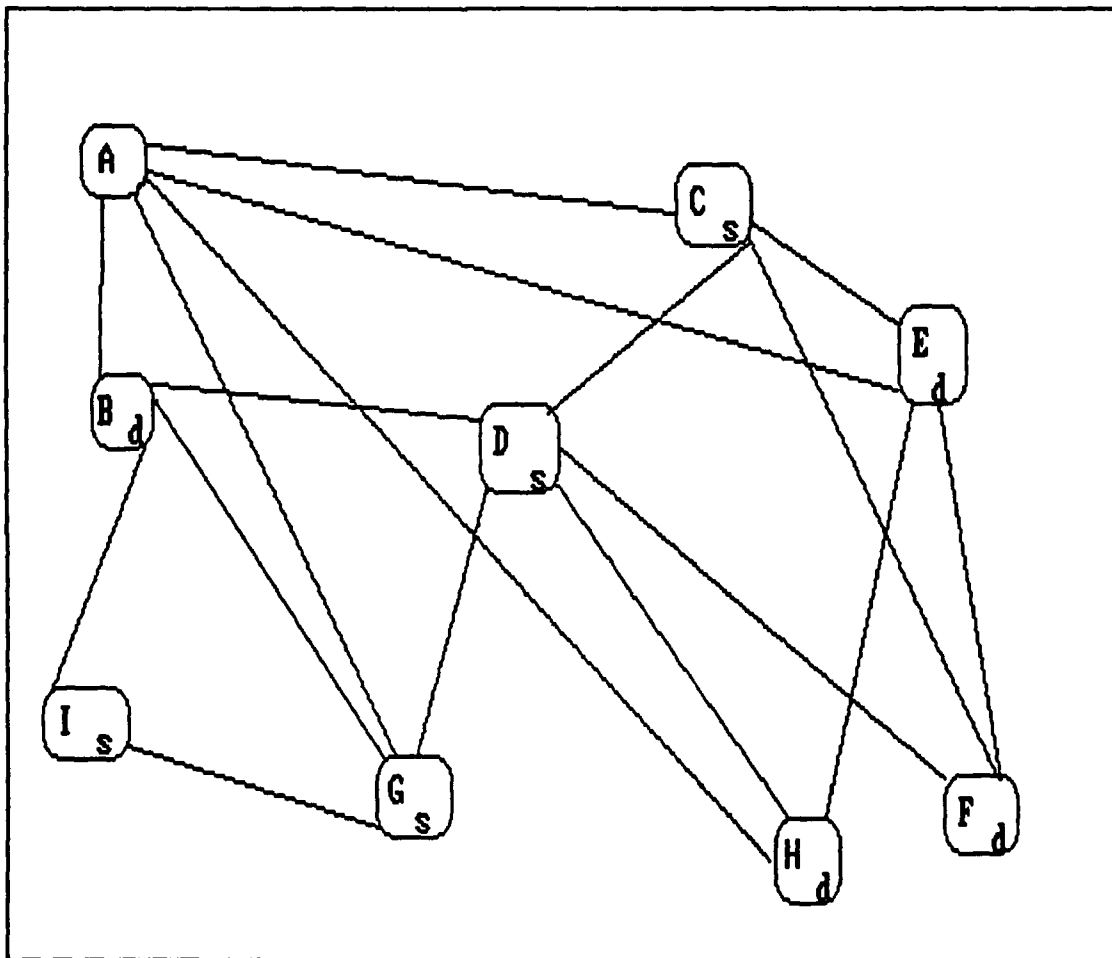


Figure 4 Example of Unit Activations

to a type "d" or a type "d" connected to a type "s" is considered dissimilar ("- " or negative correlation), while a type "s" connected to another type "s" or a type "d" connected to another type "d" is considered similar ("+" or positive correlation)). It is apparent that unit "B" has dissimilar connections with units: "D" "G" and "I", while unit "C" has dissimilar connections with units: "E" and "F", and similar connections with unit "D".

Assume that the weighting of each of the connections is considered to be equal, with each one representing a positive or negative unitary measurement. (The units directly connected from unit "A" are considered similar, thus accounting for the initial connection with the unit receiving external stimulus). The effect of the activation can be determined by an algebraic summation of each unit. If the activation threshold is assumed to be +1, so that no one unit is turned on unless it has achieved or exceeded a sum of +1, then units: "C", "E", "G", "H" and "I" are activated in this particular case. The results of the summation are presented in Table 1.

Units may be considered as similar even if there is no apparently logical correlation as long as the concepts which the units represent were experienced together. For example, suppose a young boy experienced fear when a small dog yipped at him. He may again experience the same emotion as an adult

when he sees a small dog in a pet store window, while feeling love or comfort towards a larger dog in the same scenario.

As an example of how this might work with physical objects consider a person blindfolded and given the conceptual representation of a chair in some of the places one may see or otherwise experience chairs. The different places may include: living room, kitchen, dining room, bedroom, office, or classroom, etc. Now add to the scenario the sound of a

TABLE 1. Activation of Units in Figure 1.

UNIT	ACTIVATION	SUMMATION
B	+ - - -	-2
C	+ + -	+1
D	+ + - - + - -	-1
E	+ - + +	+2
F	-	-1
G	+ - + +	+2
H	+ + -	+1
I	- + +	+1

radio softly playing in the background. At this point one may begin to automatically rank the probabilities pertaining to the actual place.

If the sound of a ringing telephone is added, then one would probably greatly decrease the activation of "classroom" while increasing the activation of other units. (In reality, even the act of considering the prioritization will greatly reinforce the perception that the highest ranking place is the correct one). If told there is a large table in the room, then one would probably further rule out living room and bedroom.

Smelling the aroma of a sauce simmering and feeling heat radiating from the general direction of the aroma, one is liable to assume he or she is in a kitchen near a stove. How surprised the person would be to discover he or she is actually in a dining room with a fondue set on the table and the heater mistakenly turned on.

This example is a simplistic representation of the process of perspective formation. Yet all perspectives experience influences in a similar fashion. This is true whether the perspectives are sensory objects, idealistic or value-based concepts, or attempts to determine an opponent's intentions.

Current studies involving the neurophysiological functioning of the brain indicate that cognition is not compartmentalized. It may depend upon the interactive

competition of neurons. This competition is greatly influenced by a variable neural firing rate and the associativity of neural connections.

This means that the previous modeling practice of isolating and focusing on only the "most relevant factors"¹⁰⁴ may result in gross inaccuracy. Factors considered irrelevant may actually have great relevance, depending on the situation.

¹⁰⁴ For further reading on this subject the reader is invited to review Chapter II, Section A concerning game theory.

B. MODELING PERCEPTIVES

Jean Piaget has described the process of perspective development in adolescents and small children.¹⁰⁵ The present section of this thesis will concentrate on modeling the process of developing perspectives in the adult decision-maker. This represents no intention to model the neural functions of the brain. Nor does it claim to represent the precise manner in which specific actions take place. This would require much more rigorous research than science is currently capable. The model presented here represents a general theoretical approach to the formation of perspectives based on the concepts and ideas developed throughout the thesis.

Figure 5 depicts the basic model and shows four domains or areas wherein conceptual development or influences take place. It is essential to understand that domains all overlap each other. This is not hierarchically structured model, thus the areas are called "domains" and not "levels." Collectively, these domains are the internal representations of the "Encapsulated Man Theory" from chapter III. Outside of the domains exist what might be called "objective events."

¹⁰⁵ Although most of Piaget's work concerns this topic, two of his more notable and easily discernable books are: The Mechanisms of Perception, (London: Routledge & Kegan Paul, 1969), and Psychology & Epistemology: Towards a Theory of Knowledge, (New York: Grossman Publishers, 1971).

Within DOMAIN I are the person's value base and belief system. As explained in the previous chapter, the more central a person's belief, the more difficult it is to change and the greater its affect on perspectives.

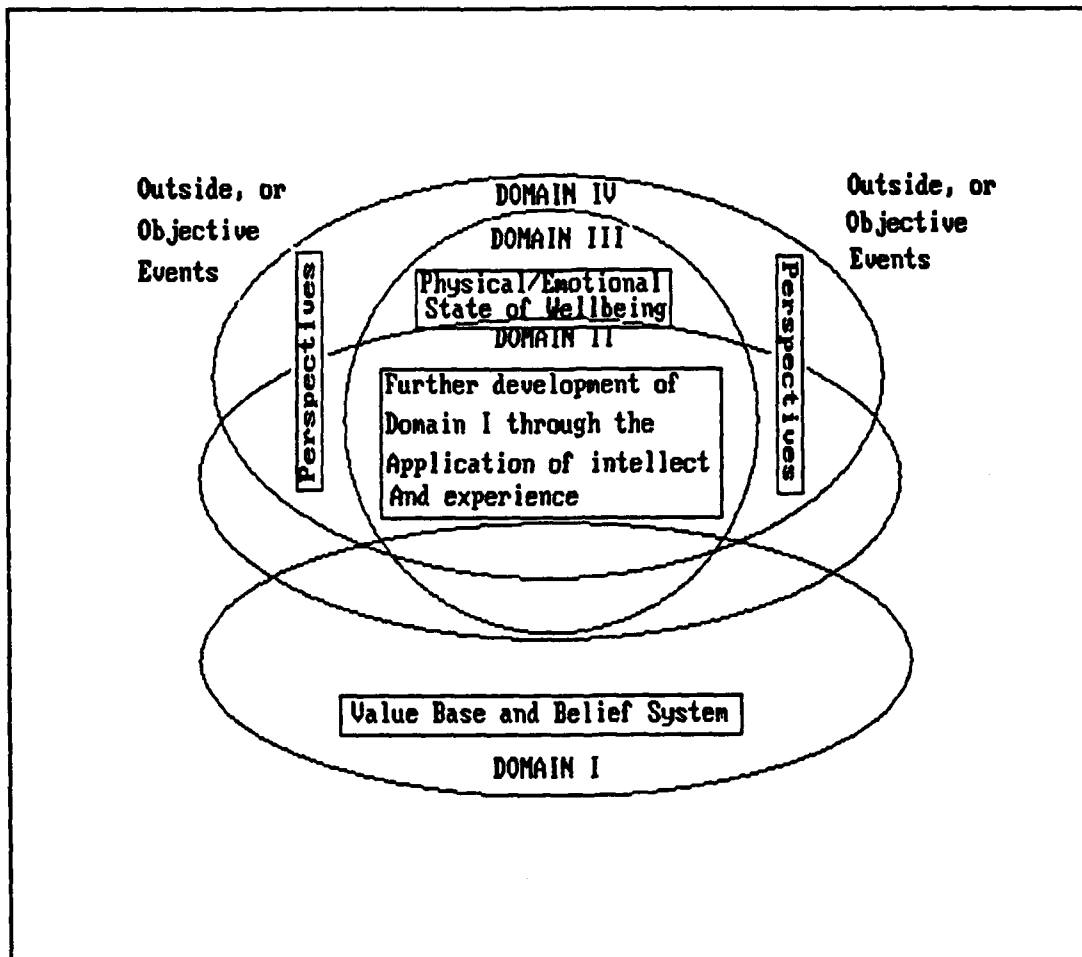


Figure 5 Basic Model of DOMAINS

Quite often this domain is fully developed at an early age. Jesuit priests are accredited with claiming that if they are given a child to teach and nurture until the age of five,

then the child will be theirs for life. Philosophical and religious literature alike abound with statements which make similar claims. In this domain dwell the beliefs for which people would rather "fight than switch." All other "domains" and perspectives are structured on DOMAIN I.

As a child matures he or she learns through experience and the use of intellect. This tempers the concepts in DOMAIN I, and develops concepts in DOMAIN II through a functional relationship with DOMAIN I. Authority beliefs and derived beliefs exist in DOMAIN II. If the child discovers there is no Santa Claus or alters his or her initial beliefs regarding God or country then the revision would be worked out in this area without shattering the foundations of the structure which are located in DOMAIN I.

The concepts in DOMAIN II largely depend on learning experiences within the context of the person's social structure. "They seem to serve the purpose of helping the person to round out his picture of the world, realistically and rationally to the extent possible. defensively and irrationally to the extent necessary."¹⁰⁶ Although these beliefs are resistant to change, they are more pliable than ones in DOMAIN I.

In DOMAIN III exists the person's physical and emotional state of wellbeing. DOMAIN III acts like a filter which

¹⁰⁶ Rokeach, 1972, 8.

colors incoming stimuli in accordance with the person's condition. This is where stress, anxiety, and emotions have an opportunity to affect one's perception of new information.

There is evidence in the literature that one's physical state affects the chemical balance in the brain. This, in turn may alter the brain's electrical connections. This determines which neurons are activated and which are inhibited from activation.¹⁰⁷ An example of one way this works is the rush of adrenaline one experiences when confronted with fear or other sudden stress.

Within DOMAIN IV exists the actual perspectives. These, as asserted throughout the thesis, are the result of the formation of subjective events or the internal representation of outside (objective) events. DOMAIN IV is where a person's concept of reality resides.

Figure 6 represents the interactive functioning of the processes described above. The oblong boxes which are in DOMAINS I - III are the actual concepts with possible activation levels ranging from least to most (or strong to

¹⁰⁷ For a simplified explanation of this general process see Section A. More in depth information may be found in the following texts: Freeman, Walter, Neurobiology Review, (Berkeley: IEEE, Neural Network Committee, 1989); de Callatay, Armand M., Natural and Artificial Intelligence: Processor Systems Compared to the Human Brain, Amsterdam: North-Holland, 1986); Kent, Ernest W., The Brains of Men and Machines, (Peterborough: BYTE/McGraw Hill, 1981); and Hart, Leslie A., How the Brain Works: A New Understanding of Human Learning, Emotion, and Thinking, (New York: Basic Books, Inc., Publishers, 1975).

weak, as may be appropriate). As in the model from Section A, it is significant to note that the history of activations is as important as the context which causes them to be activated. Thus, the more often some particular connection is activated, the more likely it will be activated in similar situations. This would partly explain the process behind inferences.

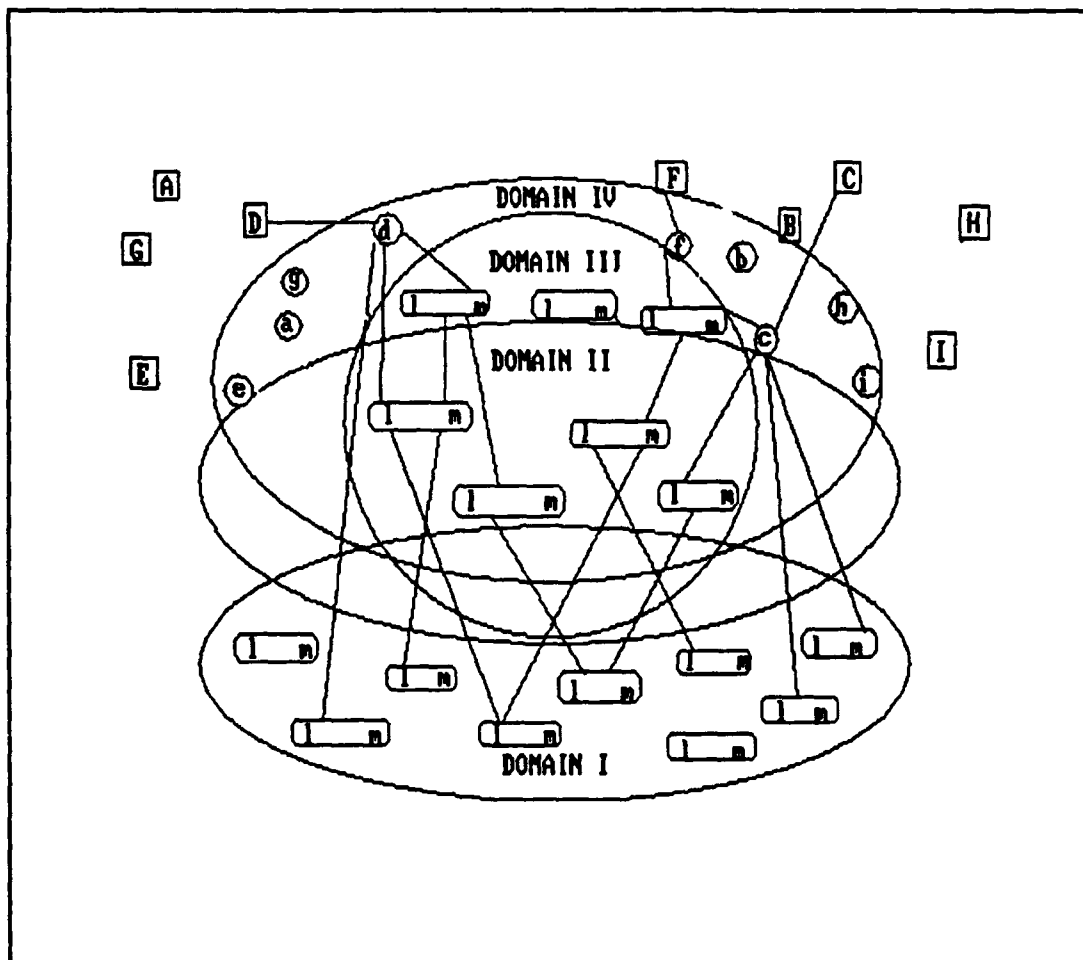


Figure 6 Expanded Model of DOMAINS

The outside events are signified by large letters enclosed within rectangles. This assumes the existence of objective reality as the standard around which each person forms their view of reality and is the basis for interpersonal communication. The path of their connections to the person's perspectives is unidirectional from the outside inward to DOMAIN IV. For example, information from "D" flows to "d" but information does not flow from "d" to "D".

The same is true regarding the connections from DOMAIN I to DOMAINS III and IV. They are unidirectional. The concepts in DOMAINS II and IV will not alter the concepts in DOMAIN I. However, all other connections between domains are bidirectional. Perspectives from DOMAIN IV may alter concepts in DOMAIN II or they may trigger emotions, etc. as well as be influenced by other DOMAINS.

C. SUMMARY

This chapter has presented three models regarding the process of forming perspectives. The three models were actually expanded views of each other, in varying degrees of representation. The first model (Section A) was based on theories of short-term and long-term memory. All three models are constructed along neural network theories primarily concerning Interactive Activation Competition and Constraint Satisfaction. It is essential to remember that the history of activations is as important as the context in which the activations occurred.

The models built on the Encapsulated Man theory using information presented throughout the thesis. The intent was to bring together the various concepts into the "big picture" of the process of forming perspectives. The thesis was designed to facilitate understanding the development of perspectives, and thus ultimately the decision-making process. The models which were presented here are intended to help understand the process leading to the decision, not to predict what decision might be made.

VIII. CONCLUSION

Perspectives are extremely important in political decision-making. This thesis has sought to show that the study of decision-making must include studying how perspectives are formed. This entails using an interdisciplinary approach.

Too often the study of decision-making has been approached in a segmented manner with social scientists each believing their discipline is the correct approach. Psychologists and psychiatrists feel the need to psychoanalyze the decision-maker and attempt to discover what dark secrets may be hidden in his or her mind. Sociologists look at the decision-maker's social organization and his or her interactive information processing. Political scientists conduct surveys or "re-fight the last war." Game theorists search for the "most relevant" information from which they can develop "rational" models. This thesis looked at some of the factors which influence the formation of perspectives, or mindsets, with the intention of demonstrating the importance of integrating various disciplines in the study of decision-making.

It was shown that several disciplines need be incorporated to discover how various factors influence the decision-making process. Proper research, at the minimum, involves studies in political science, sociology, psychology, and philosophy.

Each of these disciplines have diverse areas within in them that apply to how perspectives are formed. While conducting research for this thesis reviewing the biological processes of the brain and theories regarding short-term and long-term memory was extremely beneficial. Studying Artificial Neural Networks from computer science was quite useful for understanding how other researchers are trying to duplicate or simulate functions of the human brain.

Perspectives are often confused with beliefs or ideas. Many empirical studies involving perspectives pertain to visual experiments and optical illusions. This thesis defined perspectives as a subjective approach to an objective reality. A large portion of various sections in the thesis was devoted to examining concepts of subjective reality.

The thesis explored some of the possible interrelationships of perceptual influences with the intent of better understanding the decision-making process. While doing so, it investigated the following five hypotheses:

- Reason and reality are concepts unique to each person and probably change over time.
- Reason depends on the application of a person's culture/customs to their epistemic development.
- Previously learned concepts greatly influence how people perceive new stimuli and how people structure problems and formulate solutions.
- Culture helps to shape perceptions by setting attitudes and beliefs.
- Decisions may be determined more by influences than by information.

The thesis presented several models. The first model was a two-dimensional model of political decision-making. On the vertical plane was a continuum of levels ranging from "least important" to "most important." Here it is determined who must make the decision and the amount of attention devoted to it. The horizontal level of decision-making ranges from logic and rationalism to subjective emotionalism. Most decisions are made somewhere between the two extremes.

The first part of the thesis also discussed problems with game theory and examined how "laws" are actually only "points of reference." It showed how even laws of physics are not constant and change over time as scientist's perspectives change. Reality was discussed in terms of subjectivity and objectivity.

The thesis demonstrated that the "reason" in someone's action is important for understanding that action. Questions of "why" and "how" must be considered along with the "what" of decisions. It is not enough to look for statistical correlations or to perform a regression analysis and expect future decisions to "fit the curve." That is, not is people learn by mistakes (or any other event).

The thesis asserted that selective awareness is a problem for all people. The filtering of one's awareness is often accomplished unconsciously, and may be due to prior knowledge or experiences. At times this process causes people to make inferences which are not based on facts. The research

indicated that even experience, once thought a commonality with mankind, is subjective. No two people see or experience the same thing.

The structure with which one's mind categorizes and stores data greatly influences learning new information as well as how previously stored information is retrieved. How a person receives, perceives, stores and retrieves knowledge has a great influence on his or her formation of concepts, perceptions, and ultimately, decisions. No new situation is ever approached *tabula rasa*.

How one perceives today depends on what one experienced prior to today. Our minds apparently organizes data in a manner with which it can compare new information. This thesis suggested the concept of cognitive schemata by showing that people structure artificial order because they cannot comprehend chaos. This artificial order, or functional reality, is a microcosm of reality.

The chapter on reality presented a theory of subjective reality called the "Encapsulated Man Theory." It examined the concept of Self and how one develops one's perceived reality. Reason depends on the application of culture and custom to a person's epistemic development. Reality is unique to each individual. There are no universal laws, no constants throughout time. As society changes, so do the behavioral norms which it expects and accepts. Reality is what we make of it.

A reason expressed for why some people may not readily accept the concept of subjective reality was the tendency to believe that they actually see things in an objective sense. Then, through the process of mirror-imaging, they attribute the same perspectives to other people. Yet it was shown that no two people can perceive reality in an identical way. Reality, much like rationality, is a concept which is unique to each individual.

History was shown to affect perceptions in two important ways. One way is how history is interpreted. Another way history affects perspectives is through the culturally based development of social standards and individual personalities. History holds special relevance to the formation of perspectives because it pertains to man's relation to the world that surround him.

It was observed that self-preservation is a keen motivator of human behavior. The desire for self-perpetuation was found to be nearly synonymous with this type of motivation. This desire is coupled with the need to be understood, and thus with the need for association with people of similar background, beliefs and experiences. Multiply these needs by the people that make the particular social group and apply this factor to the generations of shared commonality and it equates to national character. National character, as a form of socialization, plays an important role in the formation of perspectives.

A person's experience and conceptual knowledge has a keen role in establishing expectations. Once a concept or belief is formed, it is hard to change, even when presented convincing factual information which contradicts the existing belief. People tend to pay attention to information which supports their beliefs and ignore information which seems to disagree with their beliefs. There is never perfect information. Information is always tempered by internal biases.

A person's values and beliefs may form the strongest influences on his or her perspectives. The importance of one's beliefs and values depend on how centrally they are located in one's belief system. Some beliefs are so essential that determining they are false or inaccurate may have disastrous effects on one's life.

There were three other models presented in the thesis regarding the process of forming perspectives. The three models were actually expanded views of each other, in varying degrees of representation. The first model was based on theories of short-term and long-term memory. All three models are constructed along neural network theories primarily concerning Interactive Activation Competition and Constraint Satisfaction. It is essential to remember that the history of activations is as important as the context in which the activations occurred.

The models built on the Encapsulated Man theory using information presented throughout the thesis. The intent was to bring together the various concepts into the "big picture" of the process of forming perspectives. The thesis was designed to facilitate understanding the development of perspectives, and thus ultimately the decision-making process. The models which were presented are intended to help understand the process leading to the decision, not to predict what decision might be made.

LIST OF REFERENCES

- Abel, Reuben. Man Is The Measure. New York: Macmillan Publishing Co., Inc., 1976.
- Axelrod, Robert, ed. Structure of Decision, The Cognitive Maps of Political Elites. New Jersey: Princeton University Press, 1976.
- Axelrod, Robert. The Evolution of Cooperation. New York: Basic Books, Inc., 1984.
- Bateson, Greogory. Mind and Nature, A Necessary Unity. New York: E.P. Dutton, 1979.
- Baumgartel, Howard. Notes on the Concept of the Life Space. Lawrence: Kansas University, 1958.
- Berger, Peter and Thomas Luckmann. The Social Construction of Reality: A Treatise In The Sociology of Knowledge. Garden City: Doubleday & Company, Inc., 1966.
- Boas, George. The History of Ideas. New York: Charles Scribner's Sons, 1969.
- Briggs, John P. and F. David Peat. Looking Glass Universe: The Emerging Science of Wholeness. New York: Simon & Schuster, Inc., 1984.
- Buss, David M. "Toward a Biologically Informed Psychology of Personality." Journal of Personality. 58:1, March 1990. (Duke University Press). 1-16.
- Carroll, John S. and John W. Payne, eds. Cognition and Social Behavior. Hillsdale: Lawrence Erlbaum Associates, 1976.
- Carterette, Edward and Morton Friedman, ed. Handbook of Perception Vol I, Historical and Philosophical Roots of Perception. New York and London: Academic Press, 1974.
- de Mause, Lloyd ed. The New Psychohistory. New York: The Psychohistory Press, 1975.
- de Callatay, Armand M. Natural and Artificial Intelligence: Processor Systems Compared to the Human Brain. Amsterdam: North-Holland, 1986.

- Deininger, Whitaker T. Problems in Social and Political Thought: A Philosophical Introduction. New York: The MacMillan Company, 1965.
- Fackenheim, Emil L. Metaphysics and Historicity. Milwaukee: Marquette University Press, 1961.
- Feuer, Lewis S. Ideology and the Ideologists. New York: Harper & Row, Publishers, 1975.
- Fisher, Glen. Mindsets: The Role of Culture and Perception in International Relations. Yarmouth: Intercultural Press, Inc., 1988.
- Freeman, Walter. Neurobiology Review. Berkeley: Institute of Electrical and Electronics Engineers, IEEE, Inc. 1989.
- Fromm, Erich. To Have Or To Be?. New York: Harper & Row, Publishers, Inc., 1976.
- George, Alexander L., Philip J. Farley, and Alexander Dalin. eds., U.S.-Soviet Security Cooperation: Achievements, Failures, Lessons. New York and Oxford: Oxford University Press, 1988.
- Hall, Edward T. The Silent Language. Garden City: Doubleday & Company, Inc., 1959.
- Hart, Leslie A. How the Brain Works: A New Understanding of Human Learning, Emotion, and Thinking. New York: Basic Books, Inc., 1975.
- Hawking, Stephen. A Brief History Of Time, From The Big Bang To Black Holes. New York: Bantam Books, 1988.
- Hayakawa, S. I. Symbol, Status, and Personality. New York: Harcourt, Brace & World, Inc., 1953.
- Jervis, Robert. Perception and Misperception in International Politics. New Jersey: Princeton University Press, 1976.
- Kahler, Erich. Man the Measure: A New Approach To History. New York: George Braziller, Inc., 1956.
- Kennedy, Robert F. Thirteen Days. (New York: Norton, 1969.
- Kent, Ernest W. The Brains of Men and Machines. Peterborough: BYTE/McGraw Hill, 1981.
- Kottak, Conrad. Cultural Anthropology. 2nd ed. New York: Random House, Inc., 1946.

- Kuhn, Thomas. The Structure of Scientific Revolutions. (Chicago: University of Chicago Press, 1976).
- Kull, Steven. Minds At War, Nuclear Reality and the Inner Conflicts of Defense Policymakers. New York: Basic Books, Inc., 1989.
- Lamprecht, S. P. Nature and History. New York: Columbia University Press, 1949.
- Manning, Charles A. W. The Nature of International Society. New York: John Wiley & Sons, Inc., 1962.
- McClelland, James L., David E. Rumelhart, and the PDP Research Group. Parallel Distributed Processing: Explorations in the Microstructure of Cognition, Vol 2: Psychological and Biological Models. Cambridge: The MIT Press, 1986.
- McNamara, Robert S. Blundering Into Disaster: Surviving the First Century of the Nuclear Age. New York: Pantheon Books, 1986.
- Morgenthau, Hans. Politics Among Nations. 5th ed. Alfred Knopf, inc., 1973.
- Niebuhr, Reinhold. The Children of Light and The Children of Darkness. New York: Charles Scribner's Sons, 1960.
- Ouspensky, P. D. The Fourth Way. New York: Vintage Books, 1957.
- Piaget, Jean. The Mechanisms of Perception. London: Routledge & Kegan Paul, 1969.
- Piaget, Jean. Psychology & Epistemology: Towards a Theory of Knowledge. New York: Grossman Publishers, 1971.
- Pneuman, Roy and Margaret Bruehl. Managing Conflict. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1982.
- Popper, Karl R. The Logic of Scientific Discovery. New York: Basic Books, Inc., 1959.
- Press, Charles and Alan Arian. Empathy and Ideology, Aspects of Administrative Innovation. Chicago: Rand McNally & Company, 1966.
- Rand, Ayn. Introduction To Objectivist Epistemology. New York: The New American Library, Inc., 1966.

- Rapoport, Anatol. Two-Person Game Theory, The Essential Ideas. Ann Arbor: The University of Michigan Press, 1966.
- Rapoport, Anatol and Albert Chammah. Prisoner's Dilemma, A Study in Conflict and Cooperation. Ann Arbor: The University of Michigan Press, 1965.
- Rokeach, Milton. Beliefs, Attitudes and Values. San Francisco, Washington, London: Jossey-Bass Inc., 1972
- Royce, Joseph. The Encapsulated Man: An Interdisciplinary Essay On The Search For Meaning. Princeton: Van Nostrand-Reinhold, 1964.
- Rumelhart, David E., James L. McClelland, and the PDP Research Group. Parallel Distributed Processing: Explorations in the Microstructure of Cognition, Vol 1: Foundations. Cambridge: The MIT Press, 1986.
- Schelling, Thomas. The Strategy of Conflict. London, Oxford, New York: Oxford University Press, 1960.
- Shapiro, Harry, ed. Man, Culture, and Society. rev ed. London, Oxford, New York: Oxford University Press, 1971.
- Simon, Herbert. Reason in Human Affairs. Stanford: Stanford University Press, 1983.
- Tetlock, Philip, et al, ed. Behavior, Society and Nuclear War Vol I. New York & Oxford: Oxford University Press, 1989.
- Tversky, Amos and Daniel Kahnemann. "Judgement Under Uncertainty: Heuristics and Biases," Science. 185:No. 4157 (27 Sep 1974).
- von Neuman, John, and Oskar Morgenstern. The Theory of Games and Economic Behavior. New York: Wiley, 1944.
- Weinberg, Harry. Levels of Knowing and Existence, Studies in General Semantics. New York: Harper & Brothers, 1959.
- West, Charles. The Social and Psychological Distortion of Information. Chicago: Nelson-Hall, 1981.
- Zohar, Danah. The Quantum Self: Human Nature And Consciousness Defined By The New Physics. New York: William Morrow and Company, Inc., 1990.
- Zoll, Donald. Reason and Rebellion. Englewood Cliffs: Prentice-Hall, Inc., 1963.

BIBLIOGRAPHY

- Abelson, Robert, et al., eds. Theories of Cognitive Consistency: A Sourcebook. Chicago: Rand McNally and Company, 1968.
- Adler, Mortimer J. Ten Philosophical Mistakes. New York: MacMillan Publishing Company, 1985.
- Amosov, N. M. Modeling of Thinking and the Mind. New York: Spartan Books, 1967.
- Anderson, J.A. "Cognitive and Psychological Computation with Neural Models." IEEE Transactions on Systems, Man, and Cybernetics. 13(5), Sep/Oct 1983. 799-815.
- Arendt, Hanna. The Life of the Mind: Two / Willing. New York and London: Harcourt Brace Jovanovich, 1978.
- Arendt, Hannah. The Life of the Mind: One / Thinking. New York and London: Harcourt Brace Jovanovich, 1978.
- Axelrod, Robert. "Schema Theory: An Information Processing Model of Perception and Cognition." The American Political Science Review. Vol. LXVII (67) December 1973 No. 4. (The American Political Science Association). 1248-1266.
- Barclay, Scott, and Cameron R. Peterson. Multi-Attribute Utility Models For Negotiations. McLean: Decisions and Designs, Inc., 1976.
- Barnouw, Victor. Culture and Personality. Homewood, Illinois: The Dorsey Press, Inc., 1963.
- Beach, Lee Roy. Image Theory: Decision Making in Personal and Organizational Contexts. New York: John Wiley & Sons, 1990.
- Benedict, Ruth. Patterns of Culture. Boston: Houghton Mifflin, 1934.
- Benedict, Ruth. The Chrysanthemum and the Sword. Boston: Houghton Mifflin, 1946.

- Bernd, Joseph L, ed. Mathematical Applications in Political Science III. Charlottesville: The University Press of Virginia, 1967.
- Bozeman, Adda B. Politics and Culture in International History. Princeton, Princeton University Press, 1960.
- Bronowski, Jacob. The Origins of Knowledge and Imagination. New Haven and London: Yale University Press, 1978.
- Caldwell, Dan ed. Henry Kissinger, His Personality and Policies. Durham, N.C.: Duke University Press, 1983.
- Callero, Monti, and Clairice T, Veit. Judgement Models For Systems Modeling and Analysis: The Subjective Transfer Function (STF) Method. RAND P-7019. (Santa Monica: Rand Corp, 1984).
- Campbell, Joseph. The Power of Myth. New York: Doubleday, 1988.
- Capra, Fritjof. The Turning Point: Science, Society, and the Rising Culture. New York: Simon and Schuster, 1982.
- Clarkson, Albert. Toward Effective Strategic Analysis: New Applications of Information Technology. Boulder: Westview Press, 1981.
- Cory, Daniel, ed. The Birth of Reason & Other Essays by George Santayana. New York & London: Columbia University Press, 1968.
- Csikszentmihalyi, Mihaly and Eugene Rochberg-Halton. The Meaning of Things: Domestic Symbols and the Self. Cambridge: Cambridge University Press, 1981.
- Czudnowski, Moshe M. Comparing Political Behavior. Beverly Hills & London: Sage Publications, 1976.
- Dember, William N. and Joel S. Warm. Psychology of Perception. 2nd ed. New York: Holt, Rinehart and Winston, 1979.
- Dogan, Mattei and Dominique Pelassy. How To Compare Nations, Strategies in Comparative Politics. New Jersey: Chatham House Publishers, Inc., 1984.
- Draper, David, James S. Hodges, Edward E. Leamer, Carl N. Morris, Donald B. Rubin. A Research Agenda for Assessment and Propagation of Model Uncertainty. RAND N-2683-RC. (Santa Monica: Rand Corp, 1987).

- Dretske, Fred I. Knowledge & the Flow of Information. Cambridge: The MIT Press, 1982.
- Fallers, Lloyd. The Social Anthropology of the Nation-State. Chicago: Aldine Publishing Co., 1971.
- Felsen, Jerry. Decision Making Under Uncertainty: An Artificial Intelligence Approach. New York: CDS Publishing Company, 1976.
- Fiske, Donald W. "From Inferred Personalities Toward Personality in Action." Journal of Personality. 56:4, December 1988. (Duke University Press). 815-833.
- Frankel, Joseph. The Making of Foreign Policy: An Analysis of Decision-Making. New York, London & Toronto: Oxford University Press, 1963.
- George, Frank. Models of Thinking. London: George Allen and Unwin Ltd, 1970.
- Goleman, Daniel. Vital Lies, Simple Truths, The Psychology of Self-Deception. New York: Simon and Schuster, 1985.
- Grossberg, Stephen, ed. Neural Networks and Natural Intelligence. Cambridge: The MIT Press, 1988.
- Hall, Edward T. The Dance of Life: The Other Dimension of Time. Garden City: Anchor Press/Doubleday, 1984.
- Hall, Edward T. Beyond Culture. Garden City: Anchor Books, 1976.
- Hastorf, Albert H. and Alice M. Isen, eds. Cognitive Social Psychology. New York, Amsterdam and Oxford: Elsevier / North-Holland, 1982.
- Hecht-Nielsen. "Neurocomputing: Picking the Human Brain." IEEE Spectrum, 25(3), March 1988. 36-41.
- Hinton, Geoffrey E. and James A. Anderson. eds. Parallel Models of Associative Memory. Hillsdale: Lawrence Erlbaum Associates, Publishers, 1981.
- Hirrai, Y. "A Model of Human Associative behavior (HASP)." IEEE Transactions on Systems, Man, and Cybernetics, 13(5), Sep/Oct 1983. 851-857.
- Horowitz, Irving L. Philosophy, Science and the Sociology of Knowledge. Springfield: Charles C Thomas Publisher, 1961.

- Hsu, Francis. Psychological Anthropology, Approaches to Culture and Personality. Homewood, Illinois: The Dorsey Press, Inc., 1961.
- Jung, Carl G. Psychological Types. London: Pantheon Books, 1923.
- Kennan, George. The Cloud of Danger. New York: Little, Brown and Company, 1977.
- Klein, Gary A. "Recognition-Primed Decisions" Advances in Man-Machine Systems Research. Vol. 5, JAI Press Inc., 1989.
- Klein, Gary A. "Knowledge Engineering: Beyond Expert Systems" Information and Decision Technologies. 16 (1990).
- Klein, Gary A. "Strategies of Decision Making" Military Review. May 1989.
- Kogan, Nathan and Michael Wallach. Risk Taking, A Study In Cognition and Personality. New York: Holt, Rinehart and Winston, 1964.
- Law, John, ed. Power, Action and Belief: A New Sociology of Knowledge?. London, Boston and Henley: Routledge & Kegan Paul, 1986.
- Lerche, Charles, Jr. and Abdul Said. Concepts of International Politics. Englewood Cliffs: Prentice-Hall, Inc., 1979.
- Lovejoy, Arthur. Essays in the History of Ideas. Baltimore: The Johns Hopkins Press, 1948.
- Lovejoy, Arthur. Reflections on Human Nature. Baltimore: The Johns Hopkins Press, 1961.
- McGowan, Patrick J. and Howard B. Shapiro. The Comparative Study of Foreign Policy: A Survey of Scientific Findings. Beverly Hills and London: Sage Publications, 1973.
- Mead, George H. Mind, Self, and Society: From the Standpoint of A Social Behaviorist. Chicago and London: The University of Chicago Press, 1934.
- Minsky, Marvin. The Society of Mind. New York: Simon & Schuster, Inc., 1985.
- Montagu, Ashley. On being Human. New York: Hawthorn Books, Inc., 1966.

- Montagu, Ashley. Culture: Man's Adaptive Dimension. New York: Oxford University Press, 1968.
- Neustadt, Richard E. and Ernest R. May. Thinking In Time: The Uses of History for Decision Makers. New York: The Free Press, 1986.
- Northrop, F.S.C. Philosophical Anthropology and Practical Politics. New York: The MacMillan Company, 1960.
- Rand, Ayn. The Virtue of Selfishness: A New Concept of Egoism. New York: The New American Library, Inc., 1964.
- Rasmusen, Eric. Games and Information, An Introduction to Game Theory. New York: Basil Blackwell Inc. 1989.
- Richards, David. A Theory of Reasons For Action. Oxford: Oxford University Press, 1971.
- Rosenwald, George C. "A Theory of Multiple-Case Research." Journal of Personality 56:1, March 1988. (Duke University Press). 239-264.
- Schank, Roger C. and Robert P. Abelson. Scripts, Plans, Goals and Understanding: An Inquiry into Human Knowledge Structures. New York: John Wiley & Sons, 1977.
- Scheerer, Constance, ed. Cognition: Theory, Research, Promise (Papers Read at the Martin Scheerer Memorial Meetings of Cognitive Psychology, University of Kansas, May, 1962). New York, Evanston, and London: Harper & Row, Publishers, 1964.
- Shackle, George. Imagination and the Nature of Choice. Edinburgh: Edinburgh University Press, 1979.
- Siegel, Sidney, Alberta E. Siegel, and Julia McMichael Andrews. Choice, Strategy, and Utility. New York: McGraw-Hill Book Company, 1964.
- Simon, Herbert. The Sciences of the Artificial. 2nd ed. Cambridge & London: The MIT Press, 1981.
- Simon, Herbert, and Laurent Siklossy, eds. Representation and Meaning: Experiments with Information Processing Systems. Englewood Cliffs: Prentice-Hall, Inc., 1972.
- Smith, Hedrick. The Power Game. New York: Ballantine Books, 1988.

- Spengler, Oswald. The Hour of Decision. New York: Alfred A. Knopf, 1934.
- Stalnaker, Robert C. Inquiry. Cambridge and London: The MIT Press, 1984.
- Stewart, Abigail J., Carol Franz, and Lynne Layton. "The Changing Self: Using Personal Documents to Study Lives" Journal of Personality. 56:1, March 1988. (Duke University Press). 41-74.
- Stillings, Neil A., Mark H. Feinstein, Jay L. Garfield, Edwina L. Rissland, David A. Rosenbaum, Steven E. Weisler, and Lynne Baker-Ward. Cognitive Science: An Introduction. Cambridge & London: The MIT Press, 1987.
- Tagiuri, Renato and Luigi Petrullo, ed. Person Perception and Interpersonal Behavior. Stanford: Stanford University Press, 1958.
- Tetlock, Philip, et al, ed. Behavior, Society and Nuclear War Vol II. New York & Oxford: Oxford University Press, 1991.
- Thordsen, Marvin L. and Gary A. Klein. "Cognitive Features of Team Decision Making" IEEE. 1990.
- Tooby, John and Leda Cosmides. "On the Universality of Human Nature and the Uniqueness of the Individual: The Role of Genetics and Adaptation." Journal of Personality 58:1, March 1990. (Duke University Press). 17-67.
- Uhr, Leonard H. Pattern Recognition, Learning, and Thought: Computer-Programmed Models of Higher Mental Processes. Englewood Cliffs: Prentice-Hall, Inc., 1973.
- Vinacke, W. Edgar. The Psychology of Thinking. 2nd ed. New York: McGraw-Hill Book Company, 1974.
- Wallace, Anthony F. Culture and Personality. 2nd ed. New York: Random House, 1961.
- Wiener, Norbert. The Human Use of Human Beings, Cybernetics and Society. New York: Avon Books, 1954.
- Winter, David G., and Leslie A. Carlson. "Using Motive scores in the Psychobiographical Study of an Individual: The Case of Richard Nixon" Journal of Personality. 56:1, March 1988. (Duke University Press). 75-103.

Wyer, Robert S. Jr. and Donal E. Carlston. Social Cognition,
Inference, and Attribution. New Jersey: Lawrence Erlbaum
Associates, Publishers, 1979.

INITIAL DISTRIBUTION LIST

Receiving Office	No. Copies
1. Defense Technical Information Center Cameron Station Alexandria, Virginia 22304-6145	2
2. Superintendent Attn: Library, Code 52 Naval Postgraduate School Monterey, California 9943-5002	2
3. RADM Phillip D. Smith, USN OP-60, The Pentagon, Room 4E556 Office of the Chief of Naval Operations Washington, D.C. 20350	1
4. Dr. Thomas C. Bruneau Chairman, National Security Affairs (NS/Bn) Naval Postgraduate School Monterey, California 93943	1
5. Dr. Frank Teti Code NS/Tt Naval Postgraduate School Monterey, California 93943	2
6. LT Paul M. Whitfield 6721 Snow White Dr. Jacksonville, Florida 32210	1